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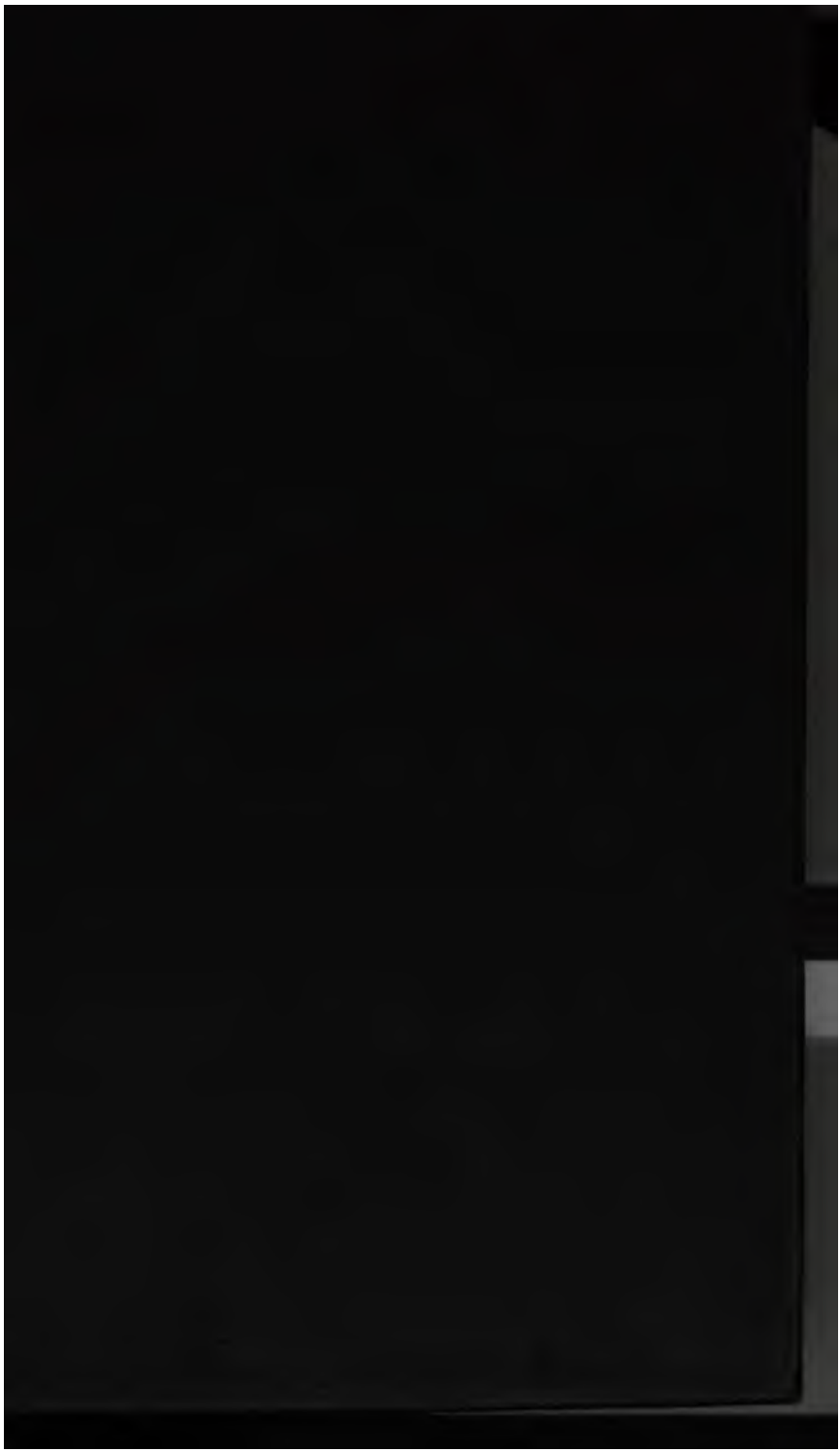

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FRIENDLY INTERVIEW WITH THE ESQUIMAUX OF THE GREAT FISH RIVER, JULY 20TH 1834.

NARRATIVE

OF A

JOURNEY TO THE SHORES

OF

THE ARCTIC OCEAN,

IN 1833, 1834, AND 1835;

UNDER THE COMMAND OF CAPT. BACK, R.N.

BY RICHARD KING, M.R.C.S. &c.

SURGEON AND NATURALIST TO THE EXPEDITION.

IN TWO VOLUMES.

VOL. II.

LONDON:

RICHARD BENTLEY,

Publisher in Ordinary to His Majesty,

NEW BURLINGTON STREET.

1836.

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CONTENTS

OF THE SECOND VOLUME.

CHAPTER XI.

Deviation from the Main Stream.—Dangerous Rapids.—Interview with the Esquimaux.—Their Friendly Conduct.—Peculiar Mode of nursing their Children.—Cleanly Habits.—Prowess in using the Sling.—Victoria Headland.—Cockburn Bay.—Arrival at the Sea.—Elliot Bay.—Arrested by Ice at Point Beaufort.—Movement of the Ice.—Observations.—The Party traverse the Inlet.—Montreal Island.—Rise of the Tide.—Change of Food.—Cessation of the Gale.—Departure from Montreal Island.—A Party despatched along the Coast.—A large Lake to the Westward.—Esquimaux Encampments.—Decrease of Vegetation.—Appearance of the Eastern Shore of the Inlet.—Point Ogle.—Drift-wood.—Mount Barrow.—View of the surrounding Shores.—Conjectures relative to the Coast.—Disagreement of the Magnetic Needles.—Return of the Party. . . Page 1

CHAPTER XII.

Inquiries with regard to the North American Indians.—Three Japanese men wrecked on the North-west Coast of America.—Philological Researches.—Contradictory Accounts of the Indian Character.—Their extreme Honesty.—Insensibility the Effect of Custom.—Sioux Woman.—Affliction for the Loss of Relatives.—Attachment to their Children.—Self-command.—Humanity and Hospitality.—Marriage Ceremony.—A Matchless Beauty.—Singular mode of Courtship.—Plurality of Wives.—Laws.—Funeral Rites.—Transmigration of the Soul.—Religious Festivals.—Dreams.—Demoralizing Effect of the Fur Trade.—Policy of the Hudson's Bay Company.—Value of Furs.—Baneful Effects of Ardent Spirits.—Judicious Investigation by Government.—Missionary Zeal.—Civilisation of the Indians.—System adopted by the Quakers.—Education of the Native Children.—Suggestions for their Amelioration. 30

CHAPTER XIII.

Detention by Weather at Montreal Island.—Violent Rain.—Arrival at the River.—Disappearance of the Esquimaux.—Their extraordinary Conduct.—Continued Rain.—Accident to the Boat.—Arrival at Rock Rapid.—Disappearance of the Animals.—Effects of the Stormy Weather.—Another Party of Esquimaux.—Conjectures whence they came.—Migration of the Feathered Tribe.—Shallow state of the Stream.—Further Detention by Storms.—American Hawk Owl.—Musk-Ox Rapid.—Arrival at Sand-hill Bay.—Meeting with Mr. M'Leod.—Melancholy Fate of Williamson.—Reappearance of the Animals.—Supply of Pro-

vision.—An unfortunate Indian Custom.—Arrival at the A-hĕl-dĕzzā.—Our Progress arrested.—Mauffley meets with an Accident. —Arrival at the House.—Its dilapidated state.—Arrival and Departure of Mr. M'Leod.—Recommencement of the Observations. —Remarks on the Aurora Borealis.—The Death of Augustus.— Indian Etiquette. — The Copper Indians deplore the ill-feeling existing between them and the Esquimaux.—The Opinion of the Natives with regard to the Creation and Confusion of Tongues. 65

CHAPTER XIV.

Early commencement of Winter.—Disagreeable Visitors.—Cunning displayed by the American Wolf.—Its Strength and Boldness. — Arrival of Mr. M'Leod and the Men to commemorate the New Year.—Departure of Mr. M'Leod and his Party.—Ermine Burrows.—A captive Ermine.—Whiskey-Jack—Its Familiarity and Habits.—Arrival of Letters from England.—Occupations at Fort Reliance.—Arrival of George Sinclair and other Men.—A Skunk killed by Sinclair in his passage.—Short account of that Animal.—Skunk-bird.—The Introduction of Rice into America.— An account of the Mink.—A Party despatched to ascertain the practicability of obtaining the Sea Boat.—Singular Island.—Discovery of a magnificent Waterfall. — A Summer Visitor. — Burrowing Owl.—"Prairie Dog Villages."—Departure of Captain Back for England.—The Expedition consigned to my care.— Impracticability of obtaining the Sea Boat. — Preparations for building a New Boat.— Pine-Martin, or Sable of the English Furriers.—Arrival of Men from the Fishery preparatory to the Departure of the Expedition for England. . . . 115

CHAPTER XV.

Departure for England.—Pine Bullfinch.—Formation of a W
ter Encampment. — Arrival at Tāl-thēl-lĕh.—An invalid In
Woman. — An account of the North American Bears. — T
Ferocity very much overrated.—Their Fear of Man.—The B
and Grisly Species easily rendered ferocious by provocatio
Instances recorded of the great power and tenacity of life
played by these animals.—Incapability of the Adult Grisly B
to climb Trees.—Fat Male and Pregnant Female Bears a
hibernate.—Situation of their Dens.—Migration of the Lean B
—Period of hibernation.—Bears feed indiscriminately upon
getable and Animal Matter.—An extraordinary circumstance
garding these animals.—The Polar Bear known to Naturalists
very early period. . . . . .

CHAPTER XVI.

Anecdotes of the Indians with regard to Bears.—Extraordi
fatness of the Bear.—Gluttony ascribed to the Esquimaux i
certain degree accounted for.—The Manners and Customs of
North American Indians compared with the Laplanders and oth
—Combats between the Polar Bear and the Walrus.—Depar
from Tāl-thēl-lĕh and Arrival at Fort Resolution.—Indian Ga
sters. — Grey and Red Sucking-Carp, Methy, Denizen of
Northern Lakes, Tullibee, and Gold Eye.—The Okow and A
rican Sandre proved to be the same species. — Arrival of
M'Leod and his Family.—Important service rendered by
Hutchinson.—Certain Indications of the advance of Spring
Canada, Snow, and Laughing Geese. . .

CHAPTER XVII.

Successful termination of the Transport of Baggage across the Great Slave Lake.—Uncertainty of conveying a Boat over unknown Ground.—Conjectures concerning a North-west Passage in a commercial point of view.—The Author loses his way by following the Track of a Lynx.—A lost Man uniformly travels in circles.—Extraordinary facility with which an Indian penetrates a Forest—By adopting the same mode the Author recovers his way.—Arrival of Birds.—A favourite American Dish.—Cinereous Owl.—Virginian Horned Owl.—Its startling Cry.—Golden-shafted Woodpecker.—Discovery of several new Species of Insects.—Important Discoveries regarding the Barren-ground Reindeer. 188

CHAPTER XVIII.

Completion of the Boat, and Departure from Fort Resolution.—Dangerous state of the Slave River.—Accident to the Boat.—Arrival at Fort Chipewyan.—Early Commencement of Spring.—A large assembly of Hooping Cranes.—Mr. M'Leod remains at Fort Chipewyan.—Departure from Fort Chipewyan, and Arrival at Portage la Loche.—The Boat conveyed over the Portage in safety.—Musquito Hawk.—The Journey resumed.—Determined Marauders of the Bird kind.—An Indian Guide engagedat Fort Isle à la Crosse.—Detention at the Rapid River Fort.—The Infant Colony on the Saskatchiwine River.—Trouble.—Fatal effects of the Influenza.—Arrival at the Grand Rapid.—An account of the Passenger Pigeon. 209

CHAPTER XIX.

A Storm encountered on Lake Winnipic.—The Autho a pet Fox, but obtains two new treasures.—The Storm rates.—The term "Winnipic" explained. — Death of Pe Iroquois Guide.—Arrival at Norway House.—Account of species of Marmot, now in the Zoological Gardens, Regent's —Departure from Norway House.—Ill-constructed Dam acr Echemarmis raised by the Hudson's Bay Company.—An a of the Beaver, with further information regarding its manne habits.—Painted Stone.—Holey Lake.—Hill and Steel Riv Arrival at York Factory.—Hudson's Bay Ship at anchor Bay.—Occupations at York Factory.—Embarkation on boa Prince Rupert.—Arrival in England. . .

CHAPTER XX.

Facts and Arguments in favour of a New Expedition. .

NARRATIVE.

CHAPTER XI.

Deviation from the Main Stream.—Dangerous Rapids.—Interview with the Esquimaux.—Their Friendly Conduct.—Peculiar Mode of nursing their Children.—Cleanly Habits.—Prowess in using the Sling.—Victoria Headland.—Cockburn Bay.—Arrival at the Sea.—Elliot Bay.—Arrested by Ice at Point Beaufort.—Movement of the Ice.—Observations.—The Party traverse the Inlet.—Montreal Island.—Rise of the Tide.—Change of Food.—Cessation of the Gale.—Departure from Montreal Island.—A Party despatched along the Coast.—A large Lake to the Westward.—Esquimaux Encampments.—Decrease of Vegetation.—Appearance of the Eastern Shore of the Inlet.—Point Ogle.—Drift-wood.—Mount Barrow.—View of the surrounding Shores.—Conjectures relative to the Coast.—Disagreement of the Magnetic Needles.—Return of the Party.

JULY 28th.—On as disagreeable a morning as ever dawned, we commenced the navigation of Lake Franklin, and made for an island to the north as well as a chilly north-west wind, and a short, breaking sea would admit.

From the summit of a tolerably high hil perceived overnight a quantity of flo ice, covering the lake in the direction of route, which by the morning had in a g measure disappeared,— although a suffic quantity remained to unite with the w and weather in impeding our progress. island formed a strait with the main l where, very much to our surprise, we fo a current running to the south of east, wh led us to a succession of shoal rapids.

On one of three islands situated in the w midst of the foaming torrent, were pla perpendicular slabs, set up as marks; wh could only have been stationed there wh the rapid was nearly or quite dry. From uneven state of the rocks forming the bed the stream, a very small quantity of wa would be sufficient to raise a sea so ov whelming that it would be impossible for t Esquimaux to reach the island. During so part of the year, therefore, this portion of t river is in all probability everywhere fordab It was estimated that scarcely a third of t water falling into Lake Franklin debouch

at this spot; from which circumstance we conjectured that the principal outlet of that body of water lay somewhere to the northward, where no land was visible. We nevertheless continued on, under the conviction that it would convey us to the sea; and whether we arrived there by the principal branch of the Great Fish River, or by a minor one only, was considered of little importance.

After passing the first rapid in safety, we reached another, of about three quarters of a mile in breadth, rolling onwards as far as the eye could reach in a continuous sheet of foam, with spray rising in every direction. After a preliminary examination, the boat, lightened as much as possible, was lowered down by means of ropes and poles, through an inner channel, running for about a mile along the western bank of the river; hence, to avoid a fall, it was necessary to plunge into the breakers on the eastern side of an island; and, although it was a rapidly inclined descent, not the slightest accident occurred. In the passage, the men had to lift the boat over a shoal part of the rapid; which caused a

considerable delay, and excited in our m great apprehensions for their safety, as t the time that was requisite to bring then sight had elapsed before they made their pearance. A fine open reach for three n aided our progress, when the river bec again interrupted with rapids, and was length so pent in by high rocks, that water rushed with so great a force aga their sides as to produce a series of high w even more overwhelming than anything had hitherto witnessed.

Having ascertained, from the summit the highest hill near us, that the river tinued to preserve a rapid course along western bank, we carefully scanned the east shore for a more favourable passage. In course of this examination we descried a p of Esquimaux, tented on the eastern bound of a fall, who, as soon as they perceived commenced running to and fro in the grea confusion. After every attempt to pass by western shore had failed, (for it was conside prudent to avoid a meeting with the Es maux if possible,) we crossed over and m

for the shore, to obtain a view of the fall where those people were encamped. The Esquimaux, about nine in number, perceiving that it was our intention to land, approached the boat, brandishing their spears tipped with bone; and having formed themselves into a semicircle, they commenced an address in a loud tone of voice, during the whole of which time they continued alternately elevating and depressing both their arms. They motioned us to put off from the shore, and at the same time uttered some unintelligible words with a wildness of gesticulation that clearly showed they were under the highest state of excitement.

We were prepared with a vocabulary of the Esquimaux language, taken from Sir Edward Parry's works, to which we referred in the hope of gathering some slight idea of what they were saying; and although it was useless in that respect, it furnished us with several words that were of the utmost importance. At the sound of tĭmā (peace), kăblōōns (white people), they ceased yelling; and after repeating those words, they one and all laid down their spears, and commenced alternately patting their breasts

and pointing to the heavens. After this manifestation of their peaceful intentions, Captain Back landed with the two steersmen, and shook them heartily by the hand;—a mode of salutation as new to them, as the rubbing of noses practised by some of the tribes was to our own countrymen; for their hands were no sooner disengaged from our friendly grasp, than they again fell with a dead weight against their sides. Captain Back having presented a couple of brass buttons to each of them, proceeded with the two men to take a view of the fall, which was found too dangerous to admit of running the boat: we therefore commenced making a portage. While the men were occupied in carrying the baggage, the Esquimaux mingled amongst them without the least fear; which gave us an opportunity of observing a few of their peculiarities. They at first refrained from touching anything, but readily lent their assistance to carry the boat when by signs they understood that it was our wish they should do so. These arrangements, occupying about half an hour, were no sooner completed than we embarked: our observations, therefore, as re-

gards those people were necessarily very limited.

That they were labouring under the greatest alarm when the boat first grounded, there cannot be a shadow of doubt; but as the same alternate elevation and depression of their arms was made with a cheerful countenance, during the interview, to an elderly man at some distance in the rear of the party, who thereupon immediately laid down his arms, and with a fearless and quick step joined the younger warriors, I am inclined to believe those motions emblematical of peace. The men were not tattooed; neither had they any lip or nose ornaments to incommode them, like those situated farther west. They appeared strong, healthy, and of a lively disposition; nor did they seem to possess that diseased state of eyes so common to the inhabitants of the interior. The singular manner, however, in which one of them threw back his head, could only be attributed to disease or idiotcy: the latter, however, I may remark, as far as my own experience goes, would be a solitary case.

The women were variously tattooed about

their faces, and had, uniformly, circular
round the third joint of the middle and f
fingers. Their jet-black hair was neatly c
ed, and parted in front into two large c
while the rest was tied up into a roll on
side: and from their ears were suspended
tions of the ermine skin, cut into narrow p
of about two inches in length. Their ex
sion of countenance was lively and pleas
and had it not been for an oblique positio
their eyes, the inner portion of which was
pressed, while the outer was proportionately
vated, they might have been deemed pretty.
sort of bag was attached to the back of t
that had children, in which they carried t
infants. Nor did they consider it necessar
remove them when they required suckling; wh
they performed in a manner no less singu
than convenient. The little child, still rest
in the couch, insinuated its head and suppli
hands round the waist of its mother to dema
the breast, when her bent arm formed its lux
rious bed. By a sudden twist it was at on
replaced into its former position to enjoy t
torpor of digestion.

There was nothing peculiar in their dress to distinguish them from those tribes which were met with by Parry and Franklin, with the exception of two of the men, who wore musk-ox-skin breeches with the fur outwards. They were singularly clean in their persons and dress, forming a striking contrast with our friends of the interior; for they were not only in the possession of combs of their own forming, but appeared to be industrious in the use of them. In return for some presents of beads and buttons, they gave us a few of their ornaments of bone; amongst which there appeared a model of the Indian dagger, precisely similar to those disposed of at the Company's posts throughout the country. As a small copper kettle was found in their possession, it is very likely that they have the means of communication, either directly or indirectly, with some of the trading posts; although it is not improbable that they might have obtained it from the Victory, abandoned by Captain Sir John Ross.

Their tents were formed in the usual manner with poles and skins; but as there was no opening at the top for the escape of the smoke,

it is probable they seldom make use of fire. Thousands of split fish were strung on lines, exposed to the rays of the sun to dry; and in the eddy of the fall were circular wells of stone, raised several feet above the level of the waters, forming repositories for the fish which, from time to time, they succeed in catching. It is possible, from the constant supply of water, that they are able to keep them alive until the temperature is sufficiently low to admit of their being laid up in a frozen state as a winter provision. They possessed seven keiyaks, or canoes, and very possibly had more concealed, since it is a practice with these people to secrete the most valuable part of their property on the appearance of strangers. An old woman held in her hand a piece of flat iron, about two inches long by one broad, with a blunt point, fastened into a handle of wood two feet in length, with which, according to her signs, she cut her food; but in all probability it was intended also as a weapon of defence.

In the use of the sling they are very expert; of which I had proof in a young man of the tribe who was persuaded to exhibit his prowess.

Having secured a stone of about a pound weight in his sling, he seized it with his left hand, while his right arm was elevated to a horizontal position with the string firmly wound round his wrist. At one motion the left hand was dropped, the sling thrown back, and the weight hurled straight-armed at least one hundred yards, with an apparent force equal to slay an enemy at more than half that distance. With one exception only, that of an infirm old man, they plucked their beards, as is customary with all the natives of the American continent. As we pushed from the shore, they assembled to see us off: the party, men, women, and children, consisted of about thirty persons.

Here we felt the want of poor Augustus, who could have explained to us, had his life been spared, many important facts relative to these interesting members of the human race. Numberless uncertainties as regards the line of coast might have been definitively set at rest, and our progress very much assisted, from the information we should have been able to glean from them. As it was, we succeeded in obtaining a sketch from one of the most intelligent

amongst them; and from the readiness with which they met our request to assist in carrying the boat, I have not a doubt, if a little pains had been taken, but one of them would have accompanied us as a guide. It would be absurd to put any faith in the rude delineation of the Esquimaux, since we could not understand a word he spoke, and our knowledge of his language consisted in three words,—tĭmā, kăblōōns, tārrĕokē;—peace, white people, the sea. If it was the sea he sketched on the sand, and afterwards on paper with a pencil, he made it run north, and afterwards bend slightly to the east, where he finished; but whether the northern line was a computed distance of five miles, or five hundred, it was impossible to divine.

We had scarcely left the fall when the current ceased to be perceptible, although the breadth of the river barely exceeded half a mile: which convinced us that the main stream followed another course. Having regained the current, after much trouble, we reached some mountains on the western shore and encamped. The following morning was cold and cloudy, with a northerly breeze, which at sun-rise caused a fog

so dense, that, after finding ourselves involved in the midst of two rapids without any previous warning of their presence, we were obliged to put ashore. The atmosphere, however, soon cleared; and having taken observations, the results of which were latitude 67° 7′ 31″ N. longitude 94° 39′ 45″ W. and the variation 8° 30′ W. we resumed the journey. A majestic headland in the extreme distance to the north soon caught our view, which on a nearer approach had a coast-like appearance; while to the westward the sandbanks, at first cliff-broken, gradually decreased into low flats, here and there interrupted by sandy knolls thinly capped with grass. The remarkable promontory to the north was subsequently honoured by receiving the name of her Royal Highness the Princess Victoria.

While crossing over to the headland, a fresh breeze sprang up, which soon raised so high a sea, that the boat shipped a good deal of water, and ultimately obliged us to run for shelter into Cockburn's Bay,—so named in compliment to the first chairman of the Arctic Committee, Vice-Admiral Sir George Cockburn. Accompanied

by Sinclair and Taylor, I ascended a mou continuous with Victoria Headland, to obt view of the western shore. Large quantit ice were seen lining its whole course, to a tensive opening, which was completely co with it at its extreme western bearing, v no land was perceptible. This opening sequently received the name of the Honou Captain Elliot, of the Admiralty; and an to the eastward, of about six miles deep, very broad, was called after Captains Irby Mangles, the Eastern travellers. In the c of the night, the boat was discovered high dry on the beach, which at eight o'clock of morning of the 30th was as deep in the w as when we landed.

This was considered as one of the moutl the Great Fish River: we therefore took opportunity of the fineness of the mornin obtain sights, which placed us in latitude 20′ 31″ N. and longitude 94° 28′ 14″ W. magnificent stream had now made a tort course of five hundred and thirty geograph miles, impeded by falls, cascades, and rapids the number of eighty-three, and swelled

quently into immense lakes with clear horizons; during the whole of which distance there was not a single tree lining its banks. Continuing along the high eastern shore, we rounded Victoria Headland and reached a craggy point, named after John Backhouse, Esquire, the under secretary of state for foreign affairs. Between a tolerably extensive island and the main, some seals were sporting in the water; which afforded us no little amusement, and one of them basking in the sunshine narrowly escaped with his life. From the summit of a high rock near which we landed, and directly opposite to a point called after Rear-Admiral Gage, we traced a line of ice to Elliot Bay, but no farther. That opening appeared entirely clear of the ice we had seen the day before: there was, however, still no land visible at the vanishing point; from which circumstance we strongly suspected that it had some communication with Lake Franklin.

To the north of that opening two or more islands were seen, extending across the inlet from west to east, distant about twenty miles; which offered a favourable opportunity for mak-

ing the opposite shore: we therefore adva
for that purpose. It was desirable to gair
western land before the shores diverged
much, since our present position was cons
ably to the eastward of the farthest point rea
by Captain Ross, according to the chart w
was sent out to us. Our route therefore la
tirely to the westward; and in fact, had it
been for the ice lining the western shore
should not have made the eastern land at
It took us between three and four hours to r
the northern point of Irby and Mangles Ba
to which spot there was every reason to
forward to a prosperous voyage to Point T
again. Here, however, it was evident that
progress would be rendered slow and labori
for round Point Beaufort, so named after
distinguished hydrographer of the navy, l
masses of ice were drifting with the tide, in
quantities that we were under the necessit
hauling the boat ashore to secure her from
jury. From the height of this projecting
ren rock, estimated at eight hundred feet, tl
appeared drift-ice extending from shore
shore; while to the northward it was boun

only by the horizon. Nothing but a southerly wind could extricate us from our present difficulty, although by taking advantage of the movement of the ice we made no doubt of reaching the western land; and as this was manifestly the narrowest part of the opening, and therefore the safest part for crossing over, we had but the alternative of waiting submissively until the barrier was removed.

A specimen of Forster's shrew-mouse,* the smallest quadruped the Indians are acquainted with, was found here; the skins of which animal they carefully preserve in their conjuring bags.

A fresh breeze from the southward during the night cleared the ice around us, and packed it against the western shore, leaving a clear channel to the north-east. Had it been considered desirable at that time to reach the Isthmus of Boothia Felix, we might have reasonably expected in two days to set at rest for ever the problem of a North-west passage by Regent's Inlet: but, since it was deemed of more importance to survey the line of coast to the westward, it was evident that by proceeding farther along the eastern shore we should only increase

* Sorex Forsteri.

the difficulty of crossing over, for the land on either side was seen gradually widening from this spot. The water was slightly brackish, and an ebb of eight inches was observable on the shingle, which in this instance was not in the least affected by the wind, for the weather was calm and the thermometer in the shade 72°. The delay afforded us an opportunity of making a series of observations which proved extremely interesting, more especially as regarded the dip and magnetic intensity. The interval between each vibration of Hansteen's needle increased to three minutes and five seconds; while, on the contrary, Dolland's dipping-needle moved much more freely than it had previously done;—precisely the reverse of what was witnessed at Rock Rapid. The latitude was ascertained to be 67° 41′ 24″ N., and 95° 2′ 16″ W. the longitude, with a variation of 6° to the westward.

At ten o'clock on the morning of the 1st of August, as the ice had sufficiently cleared along the western shore to admit of our crossing over, we lost no time in launching the boat. The weather remained perfectly calm during our passage, which was effected in three hours and

a half—a computed distance of twelve miles. A slight breeze from the north-east soon hampered us again with floating masses of ice, and made it necessary to unload and haul the boat upon the beach to secure her from injury. It was satisfactory, however, to find that the whole appeared to be drift-ice as far as the eye could reach; so that we still entertained a reasonable hope of threading our way to the northward. Some old *caches* of the Esquimaux were discovered here, and a dish formed of pot stone, one side of which had been fractured and riveted with several thin pieces of copper. This part of the coast was less precipitous and bold than that we had left, although the rocks had the same naked and rounded appearance; while their bases were covered with a layer of sand of about a foot in depth, clothed with heath and grass.

The following day we divided ourselves into hunting-parties, since there was not the least prospect of getting away, and pursued a herd of deer; which circumstance led to the discovery of our being on an island, instead of the main shore, as had been previously supposed. Between Montreal Island, as it was called in compliment

to the public-spirited and hospitable inhabitants of that city, and the main land, there was an open sea, which gave us fresh hopes of creeping onwards as soon as the boat could be launched with any degree of safety. The tide was observed to rise twelve inches; which in all probability was occasioned by the wind, and very likely the vast floating bodies of ice had some influence in augmenting it. The night was very stormy, with the wind southerly; which, in the morning, we agreeably discovered had been the means of crushing a great deal of ice on the beach, and in the course of the afternoon a barrier of about three hundred feet was entirely destroyed. A visible alteration had taken place in the main body of ice to the northward; and although it still adhered to both shores, yet in the centre it had opened to a width of ten miles, which encouraged us in the anticipation of a favourable breeze yet dispersing it.

A young musk-ox cow was discovered feeding under the lee of some high rocks, by a solitary hunter, who succeeded in killing it, and thus afforded us an agreeable change of food, it being devoid of that unpleasant flavour of musk

which is so universally the case with the older animals, and more especially the males. Some great northern divers, brown cranes, as also a smaller species of diver, were found, with young ones just hatched; and a specimen of the flat-billed phalarope was shot: besides which, the island abounded in gulls, terns, snow buntlings, and a species of tringa. Our little terrier busied himself in swimming after the young broods; but, being fairly beaten off by the old birds, particularly by the cranes, was glad to seek our protection from their determined and courageous attacks.

The gale continued without intermission until the evening of the 5th of August, when the weather moderated sufficiently to admit of our launching the boat. We ran for shelter between the island and the main; for although there was less wind, and the swell had in a great measure abated, yet from the aspect of the clouds there was every reason to expect a renewal of the boisterous weather rather than a calm. Scarcely were the sails set, when a dense fog enveloped us in comparative darkness; yet we made our way through the mist

for a few miles, until arrested by a quantity of drift-ice, which was evidently the advanced guard of the main body. As soon as we landed, three of the men were directed to proceed on foot along the coast, for the purpose of examining the state of the ice, and the general direction of the western land, with permission to absent themselves a couple of days, except they saw a probability of our moving forward.

The rain fell in torrents as the day advanced, which saturated the moss and heath we used for fuel, and obliged us to forego the comfort of a warm cup of tea. As the wind lessened, the ice drifted rapidly to the southward, and the open water, on which our hopes greatly depended, soon became converted into one compact field of ice. The exploring party returned in the evening, having made a direct distance of fifteen miles. Very far, however, from bringing a favourable report, they described the whole line of coast in every direction to be literally jammed with ice. But what exceedingly surprised us was, that, during the entire march, they had an extensive body of water on their left, with a clear horizon to the

westward, and without a single particle of floating ice perceptible in any direction. In the course of their journey they had passed between thirty and forty Esquimaux encampments, some of which appeared of recent construction: to these the natives very possibly resorted in the winter, for the purpose of catching seals.

The weather cleared on the morning of the 7th, with a south-easterly breeze, effecting a general movement of the ice, which disappeared from our view with such astonishing rapidity, that a little after noon we were sailing at the rate of five knots an hour, and only overtook our enemy at eight in the evening. In our progress we passed a low sandy point, named after Sir J. B. Pechell, Baronet, whence the vegetation sensibly grew less and less until it gradually subsided into sterility. Scarcely an elevation of any kind exceeding eight or ten feet featured the western land from the mouth of the river to this spot; while, on the contrary, the eastern coast still retained its bold and mountainous appearance. To the north of Point Beaufort it formed a conspicuous promontory, named after Captain Bowles, R.N.; and

about sixteen miles farther it jutted out in a huge projecting cape, distinguished by the name of Cape Hay, after the late under-secretary for the Colonies, a zealous promoter of geographical research. A hillock of sand, distant a mile and a half from the beach and about ten feet high, formed a conspicuous landmark; towards which we bent our course immediately on landing.

The sandy point of our encampment, called after Vice-Admiral Sir Charles Ogle, was made somewhat more acute by a small island, which at low water appeared connected with the main by a very narrow isthmus. It rained incessantly for two days, accompanied by thunder and lightning, rendering our situation extremely uncomfortable; which was greatly aggravated by the want of fire. The rain ceased at noon of the 10th of August, when it was succeeded by a fog; but, as the ice had in a great measure disappeared, we pulled to the island and made a portage across the small isthmus. After advancing a mile, the ice again paved the shore, being drifted by a north-westerly breeze, which

obliged us to haul the boat on the beach and encamp.

The men, in wandering along shore, found a log of drift-wood nine feet long and nine inches in diameter, but little soddened, which caused many suggestions as to the situation whence it came. One of our party who accompanied Sir John Franklin down the M'Kenzie, and who was proverbial for a certain straining of the imagination, persisted that it must have come from the banks of that stream; pointing out as a proof of his assertion the freedom from knots which the log presented. The rest supposed it to have come from the eastward, having been drifted down the Fish River; which, according to the Indians, it will be recollected, was not only said to fall into the sea so close to the mouth of the larger stream, that a fire could be seen from either, but that its banks were well wooded also.

On the following day I strolled to the westward as far as a sandy hill, between forty and fifty feet high, named after Sir John Barrow, Baronet; whence I could distinguish open water to the south as far as could be seen with

a telescope, and bounded to the westward
bold rocky shore, precisely similar to tha
served at Lake Franklin. The view, afte
lowing the course of the rocks in a north-e
ly direction for about fifteen miles, was obs
by a number of islands, running nearly eas
west, and terminating opposite to our enc
ment, in a rocky point, named after Ca
Maconnochie, R.N. From Cape Hay, the
blue in the distance, trended north-north-
when it dipped the horizon; but a little s
however, intervened to a land gradually r
into boldness, following a north-westerly co
the extremes of which were named Points J
Ross and Booth.

My impression was that the sea form
deep bay in that direction, and that the
passage lay between the Points Maconno
and James Ross, where the lands appeare
diverge more and more east and west, v
an open sea to the north. With regard
the opening to the south of Mount Bar
a strong presumption arose in my mind
it communicated with Lake Franklin,
formed the principal mouth of the Great I

River. The clear horizons seen both north and south of these vast bodies of water, and the inland lake, as the men described it, running in the same direction during their entire march of the 6th of August, a computed distance of fifteen miles, goes far to confirm this supposition. Moreover, the Delta,—by which is meant the whole of the western land from the Esquimaux encampment to Point Ogle,—is, in my opinion, divided into several portions, the three principal of which are intersected by the two openings north and south of Point Gage; this would agree with the Indian accounts, that three large islands were situated at the mouth of the river.

Immediately on my return to the tent, I reported these observations to Captain Back; which induced him the next morning to despatch three men, prepared with a telescope and compass, with a view of getting their opinion. Very far, however, from receiving a satisfactory account, they differed from each other in a most extraordinary manner. Two of them agreed with me; while the third gave it as his opinion that there was a western

passage, but only wide enough for the to pass. At the same time he estimate distance from Mount Barrow to our en ment at twelve miles, although accordi my reckoning it did not exceed three regards that particular spot, there cou no doubt in recognising it as the same I had reached, from the circumstance having killed a musk-ox there, which particularly named by him in pointing ou position. These contradictory statements however, in a great measure be subsequ accounted for.

During the absence of the exploring the dip was ascertained to be 89° 26′; b regards the magnetic intensity, the obs tions were very unsatisfactory, owing t extreme irregularity of the intervals bet the vibrations. The different needles also fered materially in noting the magnetic n Dolland's and Hansteen's pointing severa grees to the eastward of those which had c Professor Christie proposes discussing the v of the observations on magnetism made d

the progress of the expedition in a paper shortly to be laid before the Royal Society.

The morning of August the 13th set in with rain, and in the course of the evening a smart gale from east-south-east drove the ice, previously wedged against the shore, to the west-north-west: it, however, returned again on the shifting of the wind. The following day, therefore, Captain Back sounded a retreat; and having launched the boat between the island and the main, we took up our quarters at our former station of the 9th. The latitude was ascertained to be 68° 13′ 57″ N. longitude 94° 58′ 1″ W. with a variation of 1° 46′ to the westward. The men were assembled on the afternoon of the 15th, and informed by Captain Back that as the period fixed by His Majesty's Government for the return of the expedition had arrived, it only remained to unfurl the British flag, and salute it with three cheers in honour of His Most Gracious Majesty; whilst his royal name was given to this portion of America, under the title of William the Fourth's Land. This done, we embarked.

CHAPTER XII.

Inquiries with regard to the North American Indians.—Th
panese men wrecked on the North-west Coast of Ame
Philological Researches.—Contradictory Accounts of the
Character.—Their extreme Honesty.—Insensibility the E
Custom.—Sioux Woman.—Affliction for the Loss of Re
—Attachment to their Children. — Self-command.—Hu
and Hospitality.—Marriage Ceremony.—A Matchless I
—Singular mode of Courtship.—Plurality of Wives.—L
Funeral Rites.—Transmigration of the Soul.—Religious
vals.—Dreams.—Demoralizing Effect of the Fur Trade.
licy of the Hudson's Bay Company.—Value of Furs.—B
Effects of Ardent Spirits.—Judicious Investigation by G
ment.—Missionary Zeal.—Civilisation of the Indians.—S
adopted by the Quakers.—Education of the Native Child
Suggestions for their Amelioration.

THE manners and customs of the aborig
inhabitants of the American continent h
from the period when that vast territory
first discovered down to the present day,
nished matter of curious and interesting inq
to very many authors in England, France,

America. Nor has their attention been less directed to the discovery of the probable root whence the native tribes originally sprung. Various theories have been raised, which, from their plausibility, have caused much discussion, and both sacred and profane history have been ingeniously referred to for their support. History and tradition, as well as physical geography, point to the north-western extremity of America as the inlet by which that vast continent must have received almost all the numerous and varying tribes of its earliest inhabitants.

Notwithstanding such apparently strong evidence, we may be far from the truth; for two years have scarcely elapsed since three Japanese men were discovered in the vicinity of the Columbia River. Mr. M'Laughlin, the superintendent of the Hudson's Bay Company's establishment, situated on the banks of that stream, received intimation from the neighbouring tribes that some strange people had suddenly appeared amongst them. With much good feeling, that gentleman succeeded in rescuing them from a state of slavery; and in the course of a long

winter, partly from their knowledge of s
English words which they had learned d
their stay, but principally from signs and
delineations, their mysterious appearance w
a great measure accounted for. It app
that they formed part of the crew of a Jap
junk, laden with porcelain and rice, tr
between China and their own island, wh
violent storm drove them so far to the east
that they became perfectly lost. Their su
ings were so great for want of water, that
gradually dwindled from a very large numb
a few individuals; when, at the expiration
period exceeding a year, just as the rice w
which they had been living was expended,
were wrecked on the north-west coast, w
only three escaped. Mr. M'Laughlin, con
ing that some good might arise to this cou
by embracing the opportunity of restoring t
to their native land, and with a view of mak
us more intimately acquainted with those
gular people, sent them to England, and t
arrived in the London Docks last October.
leading members of the Hudson's Bay C
pany, apparently looking upon them in the l

of an incumbrance, or possibly conceiving that so interesting a circumstance might lead to an undesirable exposure of their trading system, promptly despatched them with the utmost secrecy to their native land.*

The judicious investigation of the different languages spoken by the Indian nations promises, if followed up, to throw more light upon this subject than is likely to arise from any other species of inquiry. The members of the Philological Society of London have lately had their attention called to the importance of studying the languages spoken by uncivilised nations, with the view of elucidating their origin, by my esteemed friend Dr. Hodgkin, than whom no one is more zealous for the welfare and improvement of the condition of these interesting people. By particular request, his valuable paper on the subject has been published. Nevertheless, it is by no means advisable to neglect recording their different tradi-

* This fact alone proves that America might have been peopled from the eastern portion of the Old World by a water passage, and therefore renders the views of Dr. Lang, as regards that country having received its inhabitants from the Polynesian Islands, additionally probable.

tions upon these matters, however absurd impossible the fables, since they will have s weight in elucidating their previous hist Physiognomic and other characters should be regarded with attention, as a means of tra their origin.

Although the various authors who have w ten on this subject have differed with respec the manner in which that vast portion of western hemisphere has been peopled, yet t all agree as regards the peculiar customs, dis sition, and pursuits of the inhabitants. A l of evidence has been published by some, teem with favourable sentiments respecting the dian character, which experience had tau them to entertain; while others, on the c trary, have laboured to paint the aboriginal habitants as despicable, vicious, and brutal, a even have gone so far as to pronounce them i ferior to the rest of mankind both in men and corporeal qualities.

The early French settlers describe them as very intellectual people, possessing a far great capacity than the peasantry of the most civilise countries. Their reasoning faculties are repr

sented as being extremely acute; they are said to be sound in judgment, eloquent in language, valorous, faithful, generous, and humane; education alone being wanting to guide their reasoning powers. They are patient of hunger and fatigue, and are characterised by such unbounded hospitality, as to be ever ready to share with their fellow-creatures, whether white or red men, the last morsel of food they possessed. Their honesty is so strict, that, notwithstanding the frequent violations of the rights of property they witnessed among the traders, and but too often experienced in their own persons, they scrupulously avoided committing a single theft. To so great a degree of self-denial do they carry this principle even to the present time, that they will rather fast several days than consume a particle of provision which does not belong to them, even where there exists a certainty of replacing it. We had proof of their strict probity at Fort Reliance, both as regards the Chipewyan and Copper Indians, who were starved to the number of fifty with abundance of provision within their reach. Nor was this the effect of conscious weakness,

since their number exceeded two hundred, w
our whole force at that time consisted
dozen individuals only.

The apparent indifference with which an
dian after a long absence meets his wife
children, has been brought against them: tl
am, however, convinced, proceeds rather f
custom than insensibility. The story of
Sioux woman, originally told by Captain
ver, is sufficient to show that the North Am
can Indians are not unmindful of the cla
either of connubial or parental tenderness. "
fected by the loss of a son of about four year
age," says that author, "she pursued the us
testimonies of grief with a rigour little inferio
that of her husband, whose anguish was so gr
as to occasion his death. This woman, who l
hitherto been inconsolable, no sooner saw
husband expire, than she dried up her tears, a
appeared cheerful and resigned, alleging a
cause, that as the child was too young when
died to be able to support itself in the coun
of spirits, both herself and husband were app
hensive that its situation would be far fr
happy. No sooner, however, did she behold

father depart for the same place, who not only loved the child with the tenderest affection, but, from being a good hunter, would be able to provide plentifully for its support, than she ceased to mourn. She saw no reason to continue her tears, as the child on whom she doated was happy under the care and protection of a fond father; and she had only one wish that remained ungratified, which was that of being herself with them."

Expressions like these, so replete with unaffected tenderness, would do honour to the most civilised, and, it is to be hoped, will tend to counteract the prejudices of those who argue in support of Indian insensibility. That reluctance to be separated from a beloved relation which is implanted either by nature or custom in every human breast, is peculiarly apparent amongst these people. At intervals, for years after the death of a relative, the living bemoan the fate of the deceased in a plaintive melancholy song, and frequently visit his grave to bestow some token of their regard either in a lock of their hair, or in an offering of tobacco. With the wife, a recapi-

tulation of the actions her husband has performed, and what he would have done had he lived, is always a favourite theme. Franklin's narratives are full of affecting instances of parental regard; and I had myself an opportunity of witnessing several examples. One case I have already mentioned as having occurred at Fort Reliance during the appalling season of famine, where an Indian was insensible to his own starving condition until roused by the information that his child was dying for want of food, and sacrificed his life in attempting to save it. Another instance transpired in the spring, when a man and his wife reached our fort who had walked barefooted over ice and snow for nine days, having laid aside their moccasins as a mourning rite observed for the loss of an only child.

The North American Indians are affectionately attached to their children. They instruct them carefully in their own principles, and train them up with attention in the maxims and habits of the nation. Their system consists chiefly in the influence of example, and impressing upon them the traditionary lore of

their ancestors; which may in some cases account for the vague and extraordinary tales that are current amongst them. When the children act wrongfully, the parents remonstrate and reprimand, but never chastise them, from an impression that they are incapable of judging between right and wrong; which holds good also with respect to children in general. An Indian has been frequently known to receive the blow intended for the child, by throwing himself between it and its white parent.

The Indians possess a nobleness of soul, and an equanimity, which we seldom attain with all the aid we draw from philosophy and religion. They are so completely master of themselves, that not the least possible alteration is perceptible in their countenance even when they meet with most unexpected insult. A Huron chief, having been insulted by a youth who was on the point of being punished by some of the tribe for his audacity, is said to have exclaimed, "Let him alone! did you not perceive the earth tremble? the youth is sufficiently conscious of his folly." But, what is more striking, an

Indian prisoner sleeps with his accu
soundness although well aware that a
death is about to terminate his captivity.

Their delicate and humane attention t
Captain Sir John Franklin and his par
season of great distress speaks volum
favour of the aborigines of the North.
Indians," says that gallant officer, "trea
with the utmost tenderness, gave us their
shoes and walked without themselves, k
by our sides that they might lift us wh
fell. They prepared our encampment, c
for us, and fed us as if we had been chi
evincing humanity that would have don
nour to the most civilised people." Aft
riving at the Indian camp, that officer
in continuation, "we were received by the
assembled in the leader's tent with lool
compassion and profound silence, which l
about a quarter of an hour, and by which
meant to express their condolence for our
ferings; when Akaitcho showed us the
friendly hospitality, and all sorts of per
attention, even to cooking for us with his
hands,—an office which he never perform

himself." The same kind treatment was experienced by Captain Back in a season of plenty from a party of Indians who accompanied him on a winter excursion. "They behaved," he states, "in the most exemplary and active manner towards myself and party, and with a generosity and sympathy seldom found even in the more civilised parts of the world; and the attention and affection which they manifested towards their wives evinced a benevolence of disposition and goodness of nature which could not fail to secure the approbation of the most indifferent observer." I wish we could record a reciprocal kindness on our part, for the facts mentioned in a former chapter exhibit a striking contrast.

So much confusion has arisen from the great variety of names applied without discrimination to the various tribes, that it would be an endless task to attempt to determine the precise people designated by the early writers. The subject, however, has engaged the attention of some of the most able philologists both of England and America; and notwithstanding the extreme difficulty with which the investi-

gation is attended, they have already succeeded in classing several of the languages and dialects.

With regard to the manners and customs of these people, I shall offer only a few remarks; not only because that subject has been dwelt upon at length by several late travellers, but because it is far more important to speak of their condition with a view to their amelioration. Many of their traditions are forgotten, and those that they retain are strangely distorted by the present generation. Although they do not observe any particular form of religious worship, they are not altogether devoid of pious impressions; since they believe in a good and evil spirit, and a state of future rewards and punishments. Beyond this I could never obtain any satisfactory account: for independently of a disinclination to enter upon the subject, their ancient traditions were mingled with the information they have more recently obtained by their intercourse with Europeans. Akaitcho invariably evaded our questions on these points, as did also that intelligent Chipewyan the Camarade de Mandeville; but they both

expressed a desire to learn from us. On one occasion, while endeavouring to impress the Camarade with a few moral precepts for his future guidance, he replied in a low and solemn tone: "The chief's words have sunk deep into my heart, and I shall often think of them when I am alone. It is true that I am ignorant; but I never lie down at night in my lodge without whispering to the Great Spirit a prayer for forgiveness, if I have done anything wrong during that day."

The ceremony of marriage is extremely simple. A day having been appointed, the father of the girl intentionally absents himself while a tent is erected for the happy pair. "What is that I observe!" exclaims the Indian on his return, with pretended astonishment; "a new tent! it must be for my son-in-law." A feast is then made, to which the parents and friends of both parties are invited; when to the assembled company the bride is introduced by her mother as the wife of the Indian, whose name she mentions, and at once becomes the mistress of the new habitation. Several speeches are then made on the occasion complimentary

of the parties, particularly with regard to the lady, whose beauty is extolled to the skies. "Behold, my brethren, her broad flat face, small eyes, high cheek-bones, low forehead, broad chin, hooked nose, tawny hide, and pendent breasts, and you will say with me she is the very essence of perfection. Only perceive what strength she exhibits: a weight of two hundred pounds is nothing for her to carry; and as for hauling a sledge, she will vie with any of the tribe." Such is a Northern Indian's idea of the beauty and accomplishments of the fair sex.

With very many of the tribes, the females are not allowed to judge for themselves, but are betrothed at a very early period to those considered most able to support them; and in some cases their parents receive a remuneration for their lost services. With other tribes, marriage originates from pure affection; this is especially the case with the Crees, Chipewyans, Sautoux, and Copper Indians. Among the Flat Heads, a tribe bordering upon the North Pacific Ocean, a singular custom prevails in this respect. The Indian belle, on

returning from the river-side with her barken dish charged from the limpid stream, is accosted by her lover with the request of a drink of water. After he has partaken thereof, should the object of his affections proceed with the remainder to the camp, it is considered as an acceptance of his offer of marriage; but if, on the contrary, she should return to the water-side for a fresh supply, it implies a refusal.

Plurality of wives is common amongst them; and as regards the number, they are guided by their capabilities of supplying them with provision. They live very happily together, and the wives are very submissive to their husbands, who have, however, occasionally their fits of jealousy, and punish any act of infidelity by cutting off their hair, nose, or ears; which is considered as a severer punishment than blows, although these are frequently inflicted with such cruelty as to occasion death. This severity generally proceeds from the infidelity having been practised without the permission of the husband; for it does not appear that chastity is considered by them as a virtue,

or that fidelity is believed to be essential to the happiness of a wedded life: a temporary interchange of wives is not uncommon, and the offer of their persons is considered as a necessary part of the hospitality due to strangers. This may account for the rapid and fatal extension of disease introduced amongst them by European visitors.

They are still extremely particular as regards their funeral rites, and in the due observance of them. Some of the tribes bury their dead dressed in the same clothes in which they breathed their last, all the property the deceased possessed being laid beside the corpse. Among others, however, the body is placed, together with the property, in a canoe, which is then elevated on a platform or on the branches of a tree. To the westward of the rocky mountains, a few tribes burn their dead, and afterwards bury the ashes, previously deposited in a vessel made of pot-stone. On their tombs are carved or painted the symbols of their tribe, which are taken from the different animals of the country; and in addition, they place in a conspicuous situation some tobacco,

a pipe, and ammunition, that they may not be destitute of the means of subsistence in the other world. With those who believe in the transmigration of the soul, it is customary to place a small bow and arrow in the right hand of the dead, that they may be enabled to hunt their way back again to this world. Should an Indian have died in the flower of his youth and his mother be still living, a lock of her hair is placed in his left hand: this they consider will have its influence in causing him to be born again of the same parent.

The Chipewyans have been charged with insensibility in not burying their dead: it arises, however, from necessity, owing to the high latitudes they inhabit; and then the rite is neglected only during a season of famine or disease. At Fort Reliance, all those that died were left as a prey to the carrion crow or ravenous wolf; whose bodies might indeed have been secured by logs of wood, since those calamities occurred in the vicinity of the forests; and I have not a shadow of doubt that this precaution would have been observed, had not the

emaciated condition of those that survi
dered them incapable of such exertion
they are not deficient in common re
the memory of their departed friends,
manifest in a long period of mourning
the destruction, not only of the property
ing to the deceased, but of their ow
and as a token of extreme regret and
they frequently cut off their hair, blacke
faces with charcoal, and mutilate the
in a dreadful manner.

The celebration of the return of the
by religious festivals is only retained by
tribes beyond the pale of civilisation,
on very particular occasions. It exists
particularly among the natives borderin
the Columbia River. They sacrifice th
salmon that is caught with great sole
when a speech is delivered by the chi
seeching the Master of Life to show his
ness towards them by granting a pros
fishing season. The Chipewyans and
in the course of the hunting season
sacrifices somewhat after the same ma
but they are generally confined to the c

ors or cunning men of the tribe. These medicine men, as they call themselves, are supposed to possess supernatural power, and are invariably consulted previously to the waging of war, or the taking of a decided step of any kind: from their decision there is no appeal. The Crees attribute their knowledge of the medicinal virtues of many of the vegetable and mineral productions of their country to deceased wise men, by whom they suppose it to have been communicated to them in dreams.

It is a matter of melancholy reflection that the civilisation of the North American Indians, a numerous race, gifted with the finest qualities that human nature is capable of displaying, should have been obstructed, rather than promoted, by their communication with Europeans: but so it is. They have, by force of example, been taught every vice that could tend to their degradation; while they have not been instructed in those arts which would have added to their comforts and conveniences. At the same time that their land is taken from them either by force or artifice, they are de-

based by a ruinous system of traffic, cularly by that adopted by those engag the fur-trade, which has been the mea removing from the face of the globe numerous tribes that once composed the and noblest of the uncivilised nations o North.

The agents of the Hudson's Bay Com are not satisfied with putting so insignif a value upon the furs, that the more a hunters only can gain a support which cessarily leads to the death of the more and infirm by starvation and cannibalism; they encourage the intemperate use of ar spirits. From the effect of intoxication u Europeans, an adequate notion of the fre with which a North American Indian is spired when under the influence of liq can scarcely be formed. He will then w equal indifference shed the blood of friend foe; his dearest connexions are murdered with compunction: and when the unfortunate wre has recovered his reason, he laments in v the misery which his own fury has entai upon him. Notwithstanding the Indians jus

ascribe to the fur-traders the blame of having supplied them with that which has caused such desolation, they will not scruple to seize the first opportunity of again obtaining the poisonous draught, and plunging with headlong infatuation into new scenes of riot and bloodshed. They will even descend to the most humiliating entreaties to procure the noxious beverage, and assume an abjectness of behaviour quite unnatural to them.

Revenge for the death of kinsmen murdered through the means of intemperance has been productive of wars which have ceased only with the extirpation of the contending parties. Additionally, the natives clearly perceive that the use of spirituous liquors is depopulating their country in a fearful manner; and yet they have not strength of mind to withstand the temptation which the traders, from interested motives, are daily holding out to them by an ample supply as long as they have any furs to barter. Sir John Franklin pointed out these baneful effects, since which period the Hudson's Bay Company have prohibited its introduction beyond Cumberland House. If

the leading members of that company sup
they have benefited the natives by that
hibition, they are much mistaken; for
Chipewyans who inhabit the country to
north of that establishment are averse t
use, and to this cause may be imputed,
only their superiority in numbers, but in n
character also.

By various means this company has succ
ed in rendering the natives entirely depen
upon them for existence, and they de
feel their degraded situation. The intro
tion of fire-arms may be assigned as one ca
for as long as they could obtain a suppl
ammunition, they neglected the use of the
and arrow, the spear, and the various m
of trapping and snaring their game; wh
from constant disuse, they have now wh
forgotten. That of granting on credit,
in the spring and autumn, a larger outf
clothing and ammunition than the Indians
able to repay by their winter and sum
hunting excursions, places them so compl
in the power of the trader by the debt
incurred, that this must be considered anc

cause of their decline. When they become advanced in life and no longer able to hunt, they are refused a supply of ammunition, which has become essential to their very existence, and they die consequently from absolute starvation. These evils have been increasing upon them of late to so great an extent, that they have become cannibals by necessity; and scarcely a month passes but some horrid tale of cannibalism is brought to the different establishments.

By comparing the value given to the Indians for their furs, and the price they are sold for by the Hudson's Bay Company in London, we may draw our conclusions as to the oppression of those people. Three marten-skins are obtained for a coarse knife, the utmost value of which, including the expense of conveying it to those distant regions, cannot be estimated at more than sixpence; and three of these skins were sold last January in London for five guineas. With the more expensive furs, such as the black fox, or sea-otter, the profit is more than tripled; and but a few years ago a *single skin* of the former species

sold for fifty guineas, while the native obta
in exchange the value of two shillings. Su
that honourable company which by royal c
ter is permitted to reap such golden harv
might appropriate a small fund to rescue f
starvation the decrepit and diseased, who
their youthful days have contributed to
wealth.

Next to the introduction of ardent spirit
contagious disease, produced by the demora
ing intercourse of Europeans, has, more t
any other cause, been the means of depopulat
the country. It has of late so extensiv
spread itself among them, that there
scarcely an Indian family which I met w
during my progress through that vast territ
that was not more or less affected with it;
to such a deplorable condition are the Cop
Indians reduced by that scourge, that in a
years, if some aid be not afforded them, t
will cease to exist. It is gratifying to kn
that the subject of ameliorating the condit
of the aborigines bordering upon our colon
is now engaging the attention of the Gove
ment. Hitherto no system has been adopt

for their improvement, and, with the exception of the exertions of the missionaries, no attempts have been made.

In 1622, missions into the wilds of Canada first commenced, principally directed by the society of the Jesuits; but after one hundred and fifty years of zeal and exertion they had not converted a single tribe, when they either voluntarily retired or were driven away by the natives. We look in vain for any moral improvement or the slightest trace of benefit obtained by those remote and uncivilised races to which the missions extended; but we find, on the contrary, a history of barbarous warfare, treachery, bloodshed, and extermination. The cause of the failure of those missionaries has been attributed to their having engaged in the fur-trade at the same time that they were rendering their pious warnings to the natives; and no sooner did the fur-bearing animals become scarce, than they are said to have retired, leaving the heathens to convert themselves. In Canada, an Indian chief thus addressed the council: "While we had beaver and furs, he who prayed was with us; he instructed our

children, and taught them to pray; he was
separable from us, and sometimes honoured
at our feasts: but when our merchandise fai
these missionaries thought they could do
further service among us."

With regard to the subject of civilising
Indians, it is one of extreme difficulty; for
have not only to combat the native prejudi
of the Indians, but to effect the more ardu
task of making them forget the impressions
have already given to them. If it were possi
to eradicate from the mind of the North Ar
rican Indian all knowledge or traditionary
membrance of the interference of the whi
which has been exerted with fearful demor
sation for two centuries, and place him in
same state as when first discovered, it wo
be far easier to effect his civilisation.
Richardson thus describes the influence of
Hudson's Bay fur-trade upon the Crees; a tr
once so formidable, that they drove all the ot
nations before them; but who now, alas! are
generated into abject slavery:—"It might
thought that the Crees have benefited by th
long intercourse with civilised nations. Th

are capable of being, and I believe are willing to be, taught, but no pains have hitherto been taken to inform their minds; and their white acquaintances seem, in general, to find it easier to descend to the Indian customs and modes of thinking, particularly with respect to women, than to attempt to raise the Indians to theirs. Indeed, such a lamentable want of morality has been displayed by the white traders, that it would require a long series of good conduct to efface from the minds of the native population the ideas they have formed of the white character."

Some have supposed that there is little prospect of success while the Indians are surrounded with the white population; but that the result would be more favourable if they were located in districts of their own, with the aid of such establishments amongst them as might tend to promote their general improvement. Others, again, are of opinion that the endeavours to civilise and to convert them should be carried on at one and the same time. This has been questioned, however, by a few, who conceive that prior to making the attempt

of converting the adult Indian to Christia
it should be invariably preceded by an en
vour to improve his condition, gain his c
dence, and instruct him by example. I t
they should be both civilised and conver
but, from my own experience, I certainly
of opinion that it will be found a far ea
and more successful task to commence
the former; and if proper attention be
to the rising generation, conversion wo
promptly and happily spread amongst old
young.

The Society of Friends were the first to
the experiment of endeavouring to civilise
Indians before attempting to convert th
and supported several agricultural establi
ments amongst some of the tribes, at a c
siderable expense. This mode of proced
is said by a late traveller to have benefited
Indians so much, that he remarks: "If
Society of Friends would undertake to revo
tionise the habits and opinions of the India
they would have the advantage of at least
entire generation of confidence and good will
their favour over every other religious sect:—

circumstance that would operate as a miracle in arriving at the measure in view." *

It is necessary, however, fully to understand the peculiar habits of these people before an endeavour is made to amend them; but above all, slowness and caution are indispensable in attempting to introduce changes amongst uncivilised nations. The education of the native children must chiefly claim the attention of those who look most anxiously towards the civilisation of the Indians. It is at present so much more difficult for an Indian to maintain his family than it was in earlier times, that they are now disposed to agree to a partial separation from their offspring. They possess a laudable curiosity, which might easily be directed to the most important ends: they are, for instance, well acquainted with the anatomy of those animals which they seek either for food or for the sake of their furs.

Nor are they deficient in physiological knowledge; for they very readily answered many

* It ought to be stated, that the labours of the Quakers amongst the Indians have been rendered almost entirely abortive by the constant removal of the tribes under their care.

questions I put to them upon that subject. V
the effect of wounds I found them particu
familiar: they were aware that an injury
to some of the organs of the animal frame ca
either an instantaneous or lingering de
while a more severe wound to others w
merely produce temporary inconvenience;
the frequent appearance of cicatrisation, l
in the stomach and spleen, convinced ther
the correctness of their judgment.

In the formation of their canoes, snow-sh
and calumets, they have shown themselves
no means inferior mechanics; and although
tools used by an Indian merely consist o
hatchet, knife, file, and awl, they are so dext
ous in the use of them, that everything th
make is executed with a neatness not to
excelled by the most expert artificer, assis
with every instrument he can wish. Thon
Hassel, whom I have mentioned before as
educated Chipewyan Indian, succeeded in ma
ing a violin at Fort Reliance that would n
have been discreditable to those who ha
learned the trade.

Mere imitation, however, does not satisfy the North American Indian; his aim is to equal the white man: and in several cases the Indians have succeeded in that desire. I have already mentioned one instance of an Iroquois at Fort Chipewyan who played the violin by note; and Hassel made such progress on the flute, by means of an instruction-book with which I furnished him, that in less than a month he could play three tunes with tolerable accuracy. They also possess a great facility for acquiring different languages; for they very commonly speak three, and I have met with some that could converse in four, viz. the English, French, Cree, and Chipewyan tongues; and they are all more or less gifted with wit and penetration. There cannot be a greater proof of the latter forming a part of their character than the remark of Tsēnthĭrrĕy, a Chipewyan, to Mr. M'Leod, who, some time after he had refused to supply him with a gun, was attempting to instil into his mind some religious and moral impressions. "That is good," said the Indian with a heavy sigh; "and if the chief wishes

to teach us in that way, let him show th
fears the Great Spirit, and sell me a gu
hunt with, for my family are starving."

With regard to their civilisation, the
River colony is of the utmost importanc
the centre from which any improvements
may be determined upon by the Govern
or by the Hudson's Bay Company might
nate. The greater part of the populati
composed of the mixed breed; a circumst
which would very much facilitate the o
in view. For this purpose, it is essential
the administration of that settlement shoul
placed under the control of the Governm
The Hudson's Bay Company hold abs
power over that colony: it is, however,
far from prosperous under their managem
No means are afforded to the settlers for the
of their crops; their barns are filled from
to time with corn only to run to waste;
as a consequence, they have sunk into a s
of idleness. A gentleman who visited it
August informed me that it was in a
deplorable condition: heaps of filth and
in the neighbourhood of every hut conta

nated the air with their effluvia; and so sensisible were the colonists of their oppression, that they appeared perfectly ready to throw off the yoke, and were only waiting for a favourable opportunity to effect it.

Dr. Hodgkin, whose continued and solicited attention has been directed for years towards the unhappy fate of the North American Indians, suggested, on my arrival in England, the propriety of teaching the aborigines the Lapland system of training the rein-deer; and thus making them a pastoral people in the first instance, which would naturally lead them in the course of time to agricultural pursuits. A more certain method of ameliorating their condition, in my opinion, could not have been conceived; for they already evince a fondness for animals in a tame state, which was apparent with regard to bears, foxes, and many smaller animals, constantly met with as pets amongst them. The most desirable pasturage in the summer season might be found in the luxuriant growth of rich grass, along the whole course of the Great Fish River, but which in the present condition of the Indians

is of no value to them. That vast ext
country may with great propriety be
no man's land; for the wars which hav
isted between the far northern Indian
the Esquimaux have made them so f
of each other, that they leave that wide
at the will and pleasure of the animals
sport there. Millions of deer find sec
therefore, while human beings both
and south of them are dying of starv
What advantage would accrue to these
happy people if peace could be firmly estal
ed amongst them! The Copper Indians
Chipewyans are extremely eager to enter
an amicable arrangement with the shiv
tenants of the arctic zone, fully awa
the benefit which would accrue from
step; but to effect this they require our
terference. What a wide field is here
posed for the humane attention of a lit
country! and a few hundred pounds w
be sufficient to effect this grand object.

CHAPTER XIII.

Detention by Weather at Montreal Island. — Violent Rain. — Arrival at the River. — Disappearance of the Esquimaux. — Their extraordinary Conduct. — Continued Rain. — Accident to the Boat. — Arrival at Rock Rapid. — Disappearance of the Animals. — Effects of the Stormy Weather. — Another Party of Esquimaux. — Conjectures whence they came. — Migration of the Feathered Tribe. — Shallow state of the Stream. — Further Detention by Storms. — American Hawk Owl. — Musk-Ox Rapid. — Arrival at Sand-hill Bay. — Meeting with Mr. M'Leod. — Melancholy Fate of Williamson. — Reappearance of the Animals. — Supply of Provision. — An unfortunate Indian Custom. — Arrival at the A-hĕl-dĕzzā. — Our Progress arrested. — Mauffley meets with an Accident. — Arrival at the House. — Its dilapidated state. — Arrival and Departure of Mr. M'Leod. — Recommencement of the Observations. — Remarks on the Aurora Borealis. — The Death of Augustus. — Indian Etiquette. — The Copper Indians deplore the ill-feeling existing between them and the Esquimaux. — The Opinion of the Natives with regard to the Creation and Confusion of Tongues.

AUGUST 15th.—In a few hours we reached Montreal Island, and partook of a warm repast, for the second time in nine days. Here we were detained by a heavy rain, accompanied

by strong breezes from the north, until nine P. M. of the succeeding day, when the weather sufficiently moderated to admit of our resuming the journey. The western range of mountains was honoured by the name of Her Most Gracious Majesty, while the eastern range was distinguished after Her Royal Highness the Duchess of Kent. In making the traverse to Point Beaufort, a thick fog enveloped us for a short time in darkness, which afterwards turning to rain, drenched us to the skin; and notwithstanding every exertion on the part of the men, it was past two in the morning before we reached the eastern shore. It had no sooner ceased raining, than a violent gale of wind set in from the north-west, which obliged us early in the morning of the 17th to seek a more sheltered situation, as well for our own comfort as for the security of the boat. The day following commenced equally rough, causing a high surf along the shore; but the weather sufficiently calmed on the morning of the 19th to justify us in embarking.

A light breeze from the eastward aided our progress at first, but ultimately freshened so

much, that we were glad to run for shelter under the lee of Victoria Headland. The wind soon after increased into a gale, and the rain fell in such torrents, penetrating through and beneath the eaves of the tent like so many rills, that it was with extreme difficulty we managed to keep ourselves dry. A fog ensued; not, however, so dense, but that we were able to creep along in-shore to the mouth of the river; in effecting which, the boat frequently grounded on the shoals. The following day (22nd) we reached the fall where the Esquimaux were first discovered, who, to our great astonishment, had disappeared: this was the more singular, as we parted from them on the most friendly terms. Notwithstanding the heavy rain that had been experienced almost continually for the last five days, the water in the river, as indicated by the marks on the rock, appeared three feet lower than was observed in our descent, and we were enabled to haul the boat along the western shore, with the exception of a narrow part where it was launched. All the rapids were found so extremely shallow as to occasion the *utmost* difficulty in towing

the boat along, and obliged us frequently to lift it over almost bare stones. This part had the appearance of the source rather than the approach to the mouth of a river, and but for the heavy rain, would in all probability have caused us considerable delay from the shallowness of the water. In the latter part of the season, when the smaller tributaries become frozen, scarcely any water can pass down these rapids; for in our descent, when the river appeared in a complete state of flood, the current was not perceptible beyond Cockburn Bay.

Just on opening the view of Lake Franklin, the Esquimaux were perceived flying with the utmost consternation to the far-distant hills, where they could be just made out with our telescopes as living objects. Their tents were deserted and their canoes secreted; a conduct so widely different from what had been expected from our first interview, that we were convinced something extraordinary must have taken place. Nor could this be in any way accounted for until after our arrival in England, when it was ascertained that the three

men despatched to Mount Barrow, whose evasive manner at the time gave indications of something unusual having occurred, had fallen in during their march with a party of Esquimaux, and an affray ensued, in which three of the natives lost their lives. The men, it appeared, having surrounded a small lake to secure some wild fowl, were surprised by a party of Esquimaux, and at once retreated. The natives in following them fired a few arrows, upon which the men turned, and discharging their guns, killed three of the party, and might possibly have wounded others, it being a practice with the *voyageurs* to load their fowling-pieces with two balls, so as to give them a double chance of securing their game. The natives, thoroughly dismayed at seeing their countrymen fall around them, fled in the greatest disorder; and the men, equally alarmed, betook themselves to flight also.

It is a lamentable fact, that these ill-fated people have hitherto met with nothing but merciless warfare from those whites who have visited their lands. It is to be hoped this sad example will operate as a warning to

future travellers never to send a party of
for any distance in a newly-discovered co
without one or other of the officers comp
the party accompanying them. A pre
exists amongst some of the tribes to fire
arrows in token of their peaceful intenti
which, in all probability, was the case
these Esquimaux, though the men were lab
ing under too much fear to ascertain the
If it was so, (and the friendly conduct of
natives in the first instance justifies the
rectness of the assumption,) that unfortu
affair is to be the more deeply deplored.
depression of spirits in the steersmen, twc
the three men that visited Mount Barrow,
observed by Captain Back for some days p
viously to our leaving the coast; and it increa
as they approached the site of the Esquima
encampment and fall to so great an exte
that a gloom spread itself, as if by infecti
over the rest of the party, nor could it
dispelled without the aid of a glass of ru
I confess that these symptoms of fear escap
my notice; and although the circumstance w
not mentioned to me by Captain Back at t

time it happened, it doubtless occurred; which I am now the more inclined to believe, from my knowledge of the conflict with the natives.

The Esquimaux, had they been inclined, might have murdered us in our beds with the greatest ease; for Captain Back and I were so little apprehensive of danger, that the night-watch had for some time been discontinued. That some of the party were in a far less happy state of mind, was evinced by the gloom Captain Back perceived amongst them; and, in all probability, it caused them many an anxious night. Ignorant of this circumstance, and considering no good could arise from any further interview, we neither crossed over to that side of the river where the natives were encamped, nor made the least signs to attract their notice, which must have very much increased their suspicions of our amicable intentions. On our leaving the rapids, a number of iron hoops were placed on a pile of stones, together with ribands of various colours, awls, fish-hooks, brass rings, and beads; which of course would be construed into treachery on our part, for the purpose of alluring them across the river, that they might fall an easier

prey to our attacks. During the whole
23rd, which was too boisterous to admit
moving, some of the Esquimaux were dis
seen, by the aid of our telescopes, watchi
motions from behind the rocks, while
were busily engaged in hiding their kie
About noon, the wind having moderat
hauled up a rapid, and sailed along the
of Lake Franklin. This was the last time
people were seen ; and, it is much to be
we left them with a very unfavourable i
sion of the white character.

As we advanced, the weather improved
the 25th, when the rain again poured do
torrents, and the wind and current com
obliged us to relinquish the oars for the to
line ; by which means the distance was
derably lengthened, as we necessarily ha
make the circuit of all the bays. Howeve
next day a fair wind made up for this, and
ried us to Wolf Rapid ; although in several
we had to lower sail and have recours
tracking. This duty was rendered exceedi
fatiguing, not only from the steepness o
banks, but from a mixture of boulders and

stones lining their sides, which slid away under the pressure of the men's feet and occasioned some severe falls. The shallowness of the stream also afforded another impediment, and in many parts the rocks were perceptible over which the boat had passed in our descent. Having picked up in the course of the afternoon our *cache* of ammunition, which was found perfectly secure and dry, we encamped for the night.

Running against a sunken rock the following day in ascending some rapids, we stove in the boat under her larboard bow, which was, however, made sufficiently water-tight to admit of our reaching a *cache* of two bags of pemmican. It had evidently been opened, and the contents examined, though carefully covered up again; which was attributed to the Esquimaux; and as several of their encampments were found close by, this was very likely to have been the case. Having effectually repaired the boat at this spot, we continued on to Escape Rapid, in one of the eddies of which the oar broken in our descent was found. After hauling up this rapid, aided by a fair wind, we arrived at Sinclair's Falls, on the shelving sides of which some

musk-oxen and deer were feeding, neither s
at our approach, nor at two white wolves
were baying them close by.

After making a portage in the same pla
on descending the river, at 9 A. M. of the
we arrived safely at Rock Rapid, and in
than three hours afterwards were navig
the waters of Lake Macdougall. This c
whelming torrent, so fearful and appallin
aspect at first view, had now subsided int
significance; and, in fact, the whole of the
pids were so changed, that it became a ma
of considerable difficulty in very many insta
to recognise them. It was not a little sing
that, with the exception of the musk-oxen,
animals had entirely deserted us; and what
become of the vast herds of deer could no
divined, except that some other extensive ri
either to the east or to the west, afforde
fresh pasturage for their southerly migrati
Having ascended the line of rapids connect
Lake Garry with Lake Macdougall, we b
our course to a sand-hill, the site of our for
encampment, where we had evidence of
stormy weather that must have visited this p

of the country, by the fields of unbroken moss washed from its summit and shelving sides, and covering its base. At that part of the lake where we were first detained by the ice, several fresh marks tipped with newly-gathered moss were perceptible; and, on landing, several tracks of men and dogs were also imprinted on the sand. We had not proceeded far on our course before some of the men espied three Esquimaux slowly rising from behind some rocks, where they must have lain concealed at the time of our pacing the shore.

A little farther on, we came suddenly in sight of ten tents, surrounded by men, women, and children, altogether amounting to about seventy or eighty Esquimaux. The women and little ones instantly fled to the rocks for protection; but the men awaited us along the shore, uttering some unintelligible words, and making the same motions with their arms as had been witnessed with the former party. In a few moments, however, we were beyond their sight, with the exception of an elderly man, who followed us for some distance whirling his sling, and, from a variety of antics, appeared to be

conjuring us away; or, for aught we kn might have been addressing our commande the words used by the Lapland woman to I næus, when he reached her hut, exhausted hunger and the fatigue of travelling thro innumerable marshes: — "O thou poor m what hard destiny can have brought thee hit to a place never visited by any one before! T is the first time I ever beheld a stranger. Th miserable creature! how didst thou come, a whither wilt thou go?"

Captain Back rather avoided an intervi than otherwise, as he considered, from the w of an interpreter, little or no information co be gathered from them; which plan, now th we are aware of the unfortunate attack up the first party, was the very worst that co have been adopted. Where they came from had no means of ascertaining; and, from so c sory a view, it is perhaps uncharitable to fo any criterion of their appearance; but the o nion was very general, that they were less clean and good-looking than their neighbours. Bei tented on the north shore, it is very probal they came from the coast of the Polar Sea; an

from the circumstance of our having seen only four kieyacks lying on the beach,—a very small number for so large a party,—it is not unlikely that a deep bay exists to the north of Lake Garry. Should it equal in extent Bathurst Inlet, the distance overland to the Arctic Ocean would fall short of ten miles. Had they approached by a water communication, a greater number of canoes would have been lying exposed to our view, for our appearance amongst them was too sudden to allow of their being secreted. To imagine that they had made their way over land from Bathurst or Chesterfield Inlets, would be giving them credit for a herculean task which they have not hitherto been known to perform.

Little difficulty was experienced in ascending the rapid leading to Lake Pelly, where we arrived on the 1st of September, and soon afterwards secured our third *cache* of provision. An island close by was discovered literally covered with drift willows and goose-quills, which had escaped our observation on passing it before. Several hundreds of geese commenced their southerly migration on the 4th, taking advan-

tage, as had been frequently before observe
a fair wind. Although equally favourabl
our place of destination, that benefit was
vailing to us, owing to the numerous r
which obstructed the part of the river we
then ascending. The sand-banks and isl
which, owing to the shoal state of the w
appeared in every direction, proved extre
troublesome, and so changed the general fea
of the stream, that it could scarcely be re
nised as the same. The Hawk Rapid was
ticularly low; but in this instance it prove
blessing, for within a short distance of its ce
the line by which the men were towing the
suddenly gave way, and, as the boat ground
no accident occurred. Had this casualty t
spired at a time when the force of water
anything like so great as in our descent,
would undoubtedly have been attended with
most distressing consequences.

For two days we were detained by a viol
storm from the north-east, that caused the ri
to rise four feet, and by overflowing its ban
obliged us to remove the boat and baggage th
different times, to secure it from the inundati

On the 8th, however, as the sun shone bright, a favourable opportunity presented itself of continuing our journey; and although a perceptible increase had taken place in the current, we encamped at the upper part of the rapid above Baillie's River. That stream now seemed a mere rivulet, compared with its previous appearance; in the extent of which, however, it was now evident from the low banks on either side, we were in the first instance deceived. The continual northerly breezes produced an atmosphere so chilly, that on one occasion the rain was turned into sleet; but the warmth of the ground melted it as it fell. The softer earth of the banks everywhere presented innumerable crannies, formed by the rain; an obvious demonstration of the season having been unusually wet, of which there cannot be a more convincing proof than the fact that scarcely a musquito or sand-fly had been seen during the whole voyage, and the few that made their appearance were too weak to give us the least annoyance.

At the cascades on the 11th we were favoured with the company of a little visitor, the *strix funerea*, or American hawk-owl, which appeared

hovering round our fire after its accust
manner. This small owl, which inhabits
arctic circle in both continents, belongs to
tural group that have small heads destitu
tufts, small and imperfect facial disks, audi
openings neither covered nor much excee
those of other birds in size, and consider
analogy in their habits to the diurnal bird
prey. It winters in the high northern latitu
and is very common throughout the fur c
tries, from Hudson's Bay to the Pacific Oc
That it is more frequently killed by the hun
than any other bird, may be attributed to
boldness and habit of flying about by d
When the hunters are shooting game, this b
is occasionally attracted by the report of the g
and is often bold enough, like the *strix nyct*
on a bird being killed, to pounce down upon
though, unlike the large species, it may be una
from its diminutive size to carry it off. In t
summer season it feeds principally on mice a
insects; while in the winter it mostly pre
upon ptarmigan, and is a constant attendant
the flocks of those birds in their spring migr
tions to the North.

After a detention of a few hours by wind on Lake Beechey, we arrived, late in the evening of the 15th of September, at the upper end of Musk-Ox Rapid. With the exception of a herd of musk-oxen that quite perfumed the air for a short distance, not a trace of a living creature was to be seen, the Indians having apparently deserted the place as soon as we took our departure in July. After crossing Musk-Ox Lake in a fog, brought on by a northerly wind, we found ourselves, on its clearing away, abreast of Icy River, which from some peculiarity is always, as its name implies, clothed in a wintery garb.

On the 17th of September, at 8 A. M. we reached Sand-hill Bay, where we had the pleasure of finding Mr. M'Leod, with four men and two Indians. For several days his attention had been riveted to the north, most anxiously watching in that direction for any distant fires or other signs of our appearance. Although he had effected his most arduous journey to Fort Reliance without the least accident, he had not been without privation: for days together neither himself nor party had tasted food, and two of the dogs had died from absolute want. Having

embarked in one of the bateaux, he acted from necessity as his own steersman, a duty to which he was fortunately quite competent, and after a prosperous voyage arrived safely at Fort Resolution. No time was lost in loading the boat with our outfit from York Factory, and having retraced his steps to the house and placed the goods under the charge of one of the men, fulfilled his last instructions by arriving at the source of the river.

The melancholy fate of poor Williamson was soon told: he was found dead, lying on his back with a few sticks near him, which he had apparently been gathering together, while his pockets were charged with a few cranberries. On an island of a few paces in length and a less number in breadth, in the most contracted part of the Great Slave Lake, which has been mentioned before by the title of Tāl-thēl-lĕh, he met his death by famine, and was interred almost on the very spot where he breathed his last. It appeared, from his sledge being with him, that he had made the island on the ice, and possibly slept there, when a disruption suddenly taking place, cut off his communication with the main

land. The spot he had been cast upon was extremely barren; not a particle of *trip de roche* could be found, and but a very few berries. Every effort had apparently been made to lengthen out his existence; a fish-hook and line having been found near him, and a raft, half completed, unquestionably intended as a ferry-boat to the main shore, had his strength enabled him to finish it.

A more able and willing man than he could not be found among the whole party, up to the period of his reaching the portage La Loche. The exertion, it would appear, of carrying a weight of between seven and eight hundred pounds across that formidable barrier was his bane; as from that time he complained of weakness, and shortly after his arrival at winter-quarters became feverish and despondent. Nevertheless he continued to perform the same duty as the other men, although it evidently occasioned pain, until near the close of the winter, when his health began rapidly to improve. At that time he received his discharge, which acted as a complete death-blow; for he conceived that to join his regiment without his companions

would expose him to ridicule; an impression that dwelt so heavily upon his mind, that he at once relapsed into his former state of ill health.

It was the opinion of Morrison and La Charité, the two men who accompanied him from the house, that he had voluntarily strayed away from them on that very account; and, from many circumstances, this is by no means unlikely. His body was found but a short distance from the fishery he had left, having retraced his steps through a very intricate country. Several days after he was lost, a party of our men encamped directly opposite to the island where his remains were found, and amused themselves with firing at swans in the open water of the narrow; yet they neither heard nor saw anything of him, although from the state of the ice at the time they are convinced he must have been there. Notwithstanding he was quite aware of the importance of making a fire to direct the steps of those who were in search of him, yet he could not have had recourse to that expedient; for no less than four parties of our men, in addition to a concourse of Indians, had at different periods passed by that

very spot after his absence was known without having perceived the least signs of smoke. I am therefore strongly impressed with the idea, that he purposely strayed away with the intention of returning to the fishery after the time appointed for the Company's boats leaving Fort Resolution for York Factory had passed by; but that a sudden disruption of the ice around the island having taken place, prevented his escape.

For two days we were detained by stormy weather; but as Mr. M'Leod and his Indian hunters had killed several deer, the delay was of no immediate importance. The animals were exceedingly numerous, appearing from the eastward; whence it is not unlikely that after having reached the Polar Sea, they had retraced their steps along the banks of the Fish River. This plentiful supply of provision was hailed by the Indians with inexpressible delight; for they had endured extreme suffering in the privation of food, in consequence of the severity of the weather, which since our departure had been worse than was ever remembered even by the elderly men of the tribe. Mr. M'Leod having

determined to take advantage of the abunda
of deer, remained behind to hunt the shores
either side of the lake; while we made a di
route to the house. Prior to starting a sli
frost had covered the ground; but the weat
as we sailed along Lake Aylmer appeared m
like summer, and in the evening became c
and warm.

We encamped near the first rapid at
southern extremity of Clinton-Colden Lake, wh
a party of Yellow Knives visited us, who w
tented about two miles further on. They h
a quantity of dried rein-deer meat and gre
prepared for us; and a party of Chipewyans,
cording to their account, not far distant, ha
larger supply at our disposal. Having learn
that Mauffley's old father lay ill at their ten
accompanied by the interpreter I crossed o
land to visit him; but his illness was beyo
the aid of medical skill. Grief for the loss
one of his sons, aggravated by constant exposu
to the extreme heat of the sun with scarcely
covering of any kind, had caused a melancho
which time alone could remove.

"A mind diseased no remedy can physic."

Independently of the destruction of the whole of his clothes and property, according to a custom that unfortunately prevails amongst all the American tribes upon the loss of a relative, he had shaved his head in order that the rays of a meridional sun might effect the greater injury. At the encampment of the Chipewyan party, Mauffley himself and a younger brother were in the same pitiable condition, except that they had very wisely abstained either from shaving their heads or exposing themselves to the mid-day sun.

Mauffley was engaged to accompany George Sinclair to Fort Chipewyan in a small canoe, for the purpose of conveying the greater part of Captain Back's baggage to that post, so as to render the more easy a trip across the ice in the spring of the ensuing year,—which plan he intended to adopt to secure an early arrival in England. Burdened with as much provision as the boat could well carry, the Indians were directed to convey the remainder to the fort; when we hoisted the foresail, and about noon of the 24th of September reached the

A-hēl-dĕzzā. After running a succession rapids and making several portages,

"Charming the eye with dread, a matchless cataract,"

compared with anything we had seen ring the whole course of the Great F River, entirely arrested our progress. either side of this fall, named after C tain Anderson, R. A., the country was rugged and mountainous, that to convey boat, or in any way to proceed with it beyo this spot, appeared utterly impossible. therefore placed it in security among so willows, and having made a *cache* of eve thing not in immediate requisition, commenc a journey across land to the fort, each m being laden with a weight of rather less th a piece.

Mauffley, who was again leading the w as guide, fell backwards with his load again a shelving point of rock, from which he r ceived so severe an injury that he was incap ble of proceeding any farther. Leaving hi therefore with an ample supply of provisio we resumed the journey, fully intending

send some Indians back to his assistance immediately on our reaching the house.

Having placed ourselves under the guidance of George Sinclair, whose knowledge of the route was little inferior to that of the Indian, we breakfasted on the morning of the 27th of September at Fort Reliance. It was quite evident the summer had been as stormy here as elsewhere, for the buildings were in a great measure unroofed and the mud used for plastering mostly washed away by the rain: the house moreover inclined so much to one side, that our first care was to prop it up. The necessary repairs were immediately commenced; and as Captain Back had determined upon relinquishing any further attempts at discovery by land, we made only those arrangements indispensably requisite to render our situation as comfortable as possible during the winter, and were therefore soon again domiciled in our habitation.

Mr. M'Leod soon joined us, and a few days afterwards proceeded with his family and all the men except six to the fishery at Tāl-thēl-lĕh. The boat in which we embarked con-

tained the greater proportion of pemmic
other goods, which, now that it was n
tended the expedition should remain
third year, was to be forwarded to
Resolution, for its use through the co
The men were then to return without
of time laden with fish from Tāl-thēl-lē
our consumption during the winter. It
mean time the observatory was thoroughl
paired, and having placed the instrumen
adjustment, we recommenced the registe
the 22nd of October.

The aurora borealis, as soon as ev
sets in, overspreads the ethereal space,
intended by Providence to cheer the l
of darkness by its beautiful and varied c
cations. For about two hours after mid
it was invariably observed by us to be
brilliant and active; passing from east to
or *vice versâ*, and northerly; sometime
pearing in the form of a splendid arch fli
across the heavens with inconceivable vel
and resembling the spiral motions of a ser
Then suddenly disappearing, the veil of
would be at once diffused around; whe

quick as the flash of a star, a thousand dancing lights would again be seen playing mysteriously through the sky, assuming a variety of forms and diversity of motion, of which it is too difficult for an inanimate description to convey an adequate idea. It seldom appeared southerly, as if there was something in that part of the heavens which it did not dare approach; but commencing in the eastern or south-eastern horizon, in which particular it coincides with the remarks of Parry and Crantz, would shoot across the zenith to the west, and descend in a variety of forms to the northern part of the earth, covering the whole of that portion of the concave with a brilliant light, while the opposite quarter of the hemisphere was enveloped in darkness.

Notwithstanding the aurora is most frequent in the severest weather during a calm, yet I have seen equally vivid coruscations when the wind was blowing a stiff breeze; and although directly opposed to its motions, far from being in any way affected, it continued uninterruptedly on in its accustomed eccentricity. At times there would appear

two currents in active motion from opposite points, approaching the zenith, where they formed a corona presenting the appearance of so many snakes twisting with amazing swiftness; while at the same time a fringed, undulating arch, composed of numberless bright rays, would be seen flitting with inconceivable velocity from the horizon towards the zenith. Among them might be frequently observed streams of light perpendicular to the horizon, collected together, and moving with even greater velocity than the rest; which from their peculiar appearance have acquired the name of the "merry dancers."

The appearance of the aurora is not confined to an unclouded sky: it was frequently observed by us in active motion when the heavens were partially obscured by a hazy atmosphere, and occasionally perceived emerging from behind a black cloud. Capell Brooke observed this peculiarity at Hammerfest; and we had an opportunity of witnessing the same strange phenomenon at Fort Reliance in November 1833; at which time there were two dark clouds in opposite directions, and the

coruscations brilliantly streaming in a variety of fantastic figures from behind them. The clouds in detached masses remained for some time assuming various forms, while the aurora nimbly played round and through them until not the slightest vestige of their presence remained. We had also frequent opportunities of observing the appearances described by Parry, of long horizontal separations of the aurora, resembling so many dark parallel streaks lying over it; which was evidently the dark indigo sky only, as the stars were plainly visible. I have often observed a grey haze effectually obscuring the sky suddenly give way to a mass of light that illumined the whole face of the heavens, as if the atmosphere had instantaneously taken fire, leaving the sky after it vanished of a dark blue colour, and studded with twinkling stars; while, on the contrary, the same grey mist has been noticed to take place on the subsidence of the aurora, which was especially the case on the 4th of April, 1834.

There cannot be a doubt but that this meteor, from the intensity of its light, dims the stars;

and from the following fact it is equally c
that it obscures the sky also in the fo
white clouds during the day, when its lum
appearance is eclipsed by the brightness
sun. A mass of white cloud was observ
ten A. M. of the 28th of October, precise
milar in shape to an aurora of the pre
evening, and situated in the same plac
which time the sun was shining brightly.
tain Back having placed himself in the sha
a fir-tree, imagined that he saw a faint filmy
of pale white issuing from it; and after wat
more attentively, a pale yellow arch was
ceived shooting from the mass of cloud t
westward, and extending southerly to S.E
S. at an angle of 30°. Afterwards severa
tached radial clouds became visible in the
point, which he more than once thought dif
much in brightness. Clouds were often obse
by us in the daytime in form and disposi
very similar to the aurora, especially on
25th of last December, when an arch of stre
and filmy clouds exactly resembling its coru
tions extended from east to west across
zenith. Captain Parry was also "struck

the general resemblance in the form of the aurora assumed by the clouds in the polar regions at particular seasons."

It has always been an interesting question with those who attempt to ascribe this beautiful phenomenon to electrical causes, whether the aurora be attended with any sound or noise; and although many accurate observers have paid particular attention to this subject in various parts of the northern hemisphere, yet the point is far from being settled. While Captain Franklin and Doctor Richardson assert they never heard the least noise, although two hundred instances of the aurora were witnessed by them, Lieutenant Hood and Captain Back thought they heard something. Thienemann, who observed the northern lights in Iceland in 1820 and 1821, says positively in his description of them, "that they are attended with no sound." Mr. Landt, in his account of the Feroe Islands, where he resided seven years, observes, that the northern lights are sometimes accompanied with a "snapping noise." Sauer, in his history of the geographical and astronomical expedition to the northern parts

of Russia in the reign of Catherine, rem
that he sometimes "heard" them shoot a
"A crackling noise, resembling that whicl
companies the escape of the sparks fro
electrical machine," was heard by Hende
who wrote an account of Iceland. Stewa
his description of Prince Edward's Island
marks that in a calm night the sound ca
by the flashings of the aurora may ofte
distinctly heard. Hearne "positively affi
that in still nights he frequently heard
northern lights make a rustling and crac
noise, like the waving of a large flag i
fresh gale of wind;"—in which opinion,
worthy of remark, he is borne out by
uniform testimony of the natives.

Parry and his officers "listened attenti
for any noise which might accompany it,
heard none." On no occasion during
winters was any sound heard to accomp
the motions of the aurora by either Cap
Back or myself. Once or twice I thoug
sound was audible, but afterwards ascertai
it to be the hissing noise produced by the s
den condensation of my breath into icy pa

cles; and Captain Back several times positively declared he heard a whizzing noise during the rapidity of the motion, until he convinced himself it was the faint murmur only of Anderson's Fall that had deceived him.

That a change of colour is perceptible in the aurora, is admitted by almost every author who has described its appearance. I believe it, however, to be of rare occurrence; for during two winters of five months each, notwithstanding scarcely a night passed away without our observing this beautiful phenomenon, Captain Back and I only witnessed it vary from the flame or straw colour eight times; five of which it appeared of a red, and the remaining three respectively of an indigo, lake, and orange colour. In about the same lapse of time also it was noticed by Parry to vary three times only, of which it appeared twice of a lilac, and once of a green tint.

Whether the magnetic needle be affected by the appearance of the aurora or not, still remains in doubt. There are different opinions upon the subject, and the observations taken by Captain Back and myself have not yet been

reduced by the professor who has underta
to work them. Parry and Forster were
opinion, from their observations at Port Bow
that the aurora did not influence the motion
the needle; and Franklin, after having no
down not only its daily, but almost hou
variations, arrived at quite a different c
clusion. To account for this discrepancy,
latter officer subsequently stated that it
quired brilliant and active coruscations to ca
a deflection of the needle; that to render
so, they should appear through a hazy atm
sphere, and that the prismatic colours should
exhibited in the beams of arches. Now,
appears from the registers kept at Port Bowe
that the aurora was seldom seen in motion, a
more rarely exhibited the prismatic colou
Hence Franklin infers that the parallel of 65
is more favourable for the frequency, brilliancy
and the activity of this phenomenon, than th
higher latitudes.

In my humble opinion there are not sufficien
facts yet collected to justify us in coming t
any conclusions either as to the effect of th
aurora on the magnetic needle, or as to th

most favourable situation for solving that problem.

According to Captain Back, who witnessed the aurora at Forts Franklin and Enterprise, that meteor was not only more brilliant, but the streams of light more rapid at Fort Reliance than he had observed it at either of the former places; from which circumstance it might be inferred that the 62nd parallel of latitude is even more favourable for the appearance of this phenomenon than the 65th. If, as has been stated, "a low temperature is favourable to brilliant and active coruscations" of the aurora, it is to the eastern extremity of Great Slave Lake that observers should direct their course to further this very interesting inquiry, as in that situation a more intense cold was experienced by ten degrees than had ever before been registered. Prior to the knowledge of this fact, some persons, by comparing the registers kept by Parry and Ross, had concluded that the most intense cold was not in the vicinity of the North Pole, but near the Magnetic Pole; and consequently, that in navigating the Arctic Ocean for a

north-west passage, the attention of explo
should be directed to far higher latitudes t
had yet been reached. They had even g
so far as to hazard an opinion, that aro
the North Pole a pool of open water wo
be found. Unfortunately, however, for th
theorists, the observations taken at Fort R
ance, instead of showing a warmer temperat
than those registered by Ross, a far grea
cold was experienced at a far greater dista
from that scene of attraction.

The result of Franklin's observations, wh
reduced by Professor Barlow, placed the M
netic Pole in 69 16′ N. latitude, and 98° 8′
longitude; and those of Captain Parry, in
titude 70° 43′ N. and longitude 98° 54′
As the latter officer in the course of his d
coveries passed from east to west of the M
netic Pole, it was reasonable to suppose th
a more accurate computation of its positi
would be the result of his observations th
those taken by Franklin; which, as everybo
knows, was subsequently verified. Howev
from the united labours of these officers,
beautiful and satisfactory proof was drawn

the solar influence on the daily variation of the magnetic needle. During the same months, at an interval of one year only, and at a distance not exceeding eight hundred and fifty-five geographical miles, Parry and Franklin were making hourly observations on two needles, the north ends of which pointed almost directly towards each other; and while the needle at Port Bowen was increasing its westerly direction, that at Fort Franklin was increasing its easterly, and the contrary.

It fell to my share, during the two winters the expedition remained at Fort Reliance, to register the position of the needle one thousand and fifty times; but as the subject will shortly be brought before the Royal Society, I shall offer only a few remarks.

I have sometimes observed the needle quite stationary, when the whole concave has been illumined with brilliant and active coruscations; and at other times witnessed it moving horizontally several degrees, without the least appearance of an aurora, although from the deep indigo colour of the sky it must have been seen had it been present. The same

anomaly was remarked in a hazy atmosph
During the prevalence of counter-currents,
needle was observed to dip, by estimation,
least ten minutes. On one occasion, howe
the same action was apparently caused
applying the finger to the front glass of
frame containing the needle.

Captain Franklin noticed that on several
casions the needle oscillated when he approa
ed it in a dress of water-proof cloth, althou
it remained stationary when others of his pa
examined it in their ordinary garments.
two occasions Captain Back noticed a swaggi
motion of the needle opposed to the rotato
one; which he thought was caused in the o
case by the accidental scraping out of a kett
while it was swinging, at a distance of o
hundred and fifty yards; and in the secon
case, by the simple scraping out of a keg.

A very common movement was that in a
opposite direction to the position of the auro
indicating a repulsive action; just the revers
of what was observed by Sir John Franklin
who invariably found the needle attracte
towards that situation where the aurora ap

peared most brilliant. At times we thought the wind caused the vibration of the needle, it having been noticed very frequently to keep to that quarter whence the atmosphere was in violent motion. Captain Franklin was of opinion also that "the deviation of the needle was effected by changes in the weather,—in a gale of wind or a snow-storm always considerably so."

One thing is certain, that the needle was as frequently in active motion in the course of the day as during the night; and if the oscillation was caused by the aurora, we may infer that the phenomenon exists at times during the whole twenty-four hours, but rendered opaque by a more brilliant light than its own.

An idea which is very generally entertained by all the North American tribes with regard to this phenomenon is singular and romantic. They believe it to be the spirits of their departed friends dancing in the clouds; and when the aurora borealis is brighter than usual, at which time it varies most in colour, form, and situation, they say their deceased friends are very merry. It is remarkable that the

Laplanders should also entertain the sa
belief, which is evident upon the authority
Capell Brooke. "The Laplanders, who a
very superstitious," says that author, "imagi
the northern lights to be the shades of th
departed relations dancing about; and as th
are continually changing their form, will e
claim, There is my father, or mother, accordi
as fancy may suggest a likeness to them i
the flitting light." The Tunguses, in Siberi
where the northern lights are constant an
very brilliant, consider that they are spirit
at variance fighting in the air.

In Finmark an idea is very prevalent amon
the lower class of the inhabitants, that "th
northern lights are caused by the immens
shoals of herrings in the Polar Sea, which, whe
pursued by large fish, make a sudden turn
and the luminous appearance which take
place in consequence from the agitation of the
waters, and perhaps their own natural phos-
phorescent qualities, they believe to be reflected
by the heavens, and to occasion these brilliant
lights." I have a faint recollection of having
heard the same opinion from a Chipewyan

at Fort Reliance; but having omitted to note it down at the time, I may possibly be mistaken. I am the more inclined, however, to believe it was so, from the fact that the far northern Indians are well acquainted with the phosphorescent properties of the sea.

The melancholy fate of Augustus, of which there had been for some time an imperfect rumour, was now correctly ascertained from a party of Indians who brought us a supply of meat. His remains were found not far from La Rivière à Jean, whither he had retraced his steps, apparently towards Fort Resolution, when, exhausted by fatigue and famine, the poor fellow sunk to rise no more. Another day, had it been the will of Providence to spare his life, he would in all probability have gained the land of plenty by reaching the Company's post. It appeared, from his corpse having been discovered lying on the ice a considerable distance from the land, that he had been overtaken in making a traverse by one of those snow-storms which at times are so overwhelming that even the strong and hale fall victims to their rage, much less those

whose frames have become weakened by a continuance of suffering and privation. Thus terminated the life of an Esquimaux chief and interpreter, to whose fidelity and bravery such honourable testimony has been borne by Captain Sir John Franklin, that there needs no further comment from me.

Mauffley recovered but slowly from the injury he received; another Indian was therefore engaged to accompany Sinclair to Fort Chipewyan towards the close of the month of October; and almost immediately afterwards they took their departure. Two nets that were set in the bay produced daily a few white-fish and trout, and the Indians brought us an occasional supply of meat. Akaitcho and the Yellow Knives contributed only a small quantity towards replenishing our store, having been far less fortunate in their summer hunts than their neighbours the Chipewyans. Akaitcho, as soon as Indian etiquette would permit him,—it being customary with the Indians never to broach a subject until some time after their arrival from a journey, and at all events not until after they have smoked one or more calumets of tobacco, —put many questions to us about the river, and

more especially regarding the Esquimaux. The early traces of those people surprised him exceedingly; for, although the young men of the tribe had on several occasions, when hunting a few miles to the north of Musk-Ox Rapid, declared they descried the natives crossing the mountains in the distance, he had hitherto regarded the subject as imaginary. The information was received by them with evident concern, and notwithstanding every pains was taken to point out by chart how far the stream might be descended on their hunting excursions without the least fear of meeting with the inhabitants of the coast, it was quite apparent in their countenances that they did not intend to incur the risk of penetrating farther north than had been customary.

The representation of the vast herds of deer seen feeding on the rich plains extending from either side of the river, drew from them expressions of the deepest regret at the hostility still existing between the nations. The incalculable advantage that would arise from making peace was to them as evident as the extreme difficulty which must attend the accomplishment of this important object if the attempts

at effecting it be left to themselves. Akaitcho did not hesitate to give it as his opinion, that without the interference of the white chiefs it would be utterly impossible to effect an amicable arrangement with a nation they had warred against from time immemorial; of which idea he was the more certain from the difficulty that would naturally arise, if they were fortunate enough to obtain an interview, in comprehending each other, since the two languages are utterly distinct. The gloom that had spread itself during this conversation over all the Indians assembled together gradually gave way to peals of uninterrupted laughter, which resounded again in the hall, when we imitated the actions of the Esquimaux upon our first appearance amongst them. Their rude carvings were minutely scrutinised: a pair of boots in particular, which I represented to them had been worn by a *chācquĕe* or woman, underwent an especial examination.

The rein-deer were so numerous and easy of approach, that the happiness which this good fortune occasioned was apparent in every hut and depicted in every countenance, forming a

striking contrast to the ghastliness of the previous year. Old Soul, a Chipewyan, and renowned warrior in his youthful days, freely and cheerfully related to us the tradition current among his tribe with regard to the creation, being in substance as follows:—The Indian did not pretend to give an opinion in what way man got into the world, but commenced by saying he made his first appearance during the summer months, when the berries were abundant on the earth, upon which his subsistence entirely depended. "As soon as the winter set in, the depth of snow inconvenienced him in so great a degree, that in accordance with the trite adage, "necessity is the mother of invention," he at once conceived the formation of the snow-shoe. After the lapse of a short time the birchen frames were perfected; but as he could not net them, for that was a woman's work, they remained unfinished in his lodge; from which circumstance his labour was very much increased, and the chance of gaining a subsistence became every day more precarious. One day, on returning to his hut, a noise as if some one was working at the snow-shoe frames

attracted his notice; and upon a nearer
proach, a wood-partridge flew from the ope
at the top, which at that time he paid l
regard to. The succeeding day he sallied f
on another hunting excursion; and having
mained out until quite dark, his attention
suddenly drawn towards his hut by the
pearance of volumes of smoke issuing from
Returning home with all speed, he perceive
wood-partridge again make its escape;
on entering the tent, found his snow-shoes m
than half netted, and carefully placed beyc
the reach of a fire that was blazing insi
Suspecting the partridge had effected all th
though in what manner could not be divine
he determined to secure it if at all practi
ble; and with this view the roof of the te
was carefully closed prior to his departure
another hunting trip which he took a fe
days afterwards. It occurred to him that
returning earlier than usual the bird mig
be taken by surprise; he therefore approache
the door of the tent with the utmost cautio
and was fortunate enough by that means
cut off the retreat of the partridge, which in

stantly became metamorphosed into a young wife; whence the world soon became peopled.

His rude idea of the confusion of tongues, which is a generally entertained opinion throughout the tribe, was related somewhat after this manner:—For several generations after the creation there existed only one language; but, owing to an unfortunate circumstance, that harmony was soon destroyed. A number of children assembled together, having exhausted all the games they had been accustomed to play, were at a loss how they could further amuse themselves. Having observed and participated in the joy that invariably spread itself through the whole camp on their parents killing and cutting up the several animals of the chace, they agreed among themselves to go through the ceremony in play. One of the juveniles was accordingly hung after the manner of strangling the deer when caught in a snare, until he ceased to live, and the body immediately afterwards divided into several portions. Each, laden with a share, proceeded to the respective tents of their parents, and related the droll game they had been playing. The horrid deed so shocked

them, that they were not only utterly founded, but rendered incapable of compreh ing each other, and in consequence sepa into far-distant countries.

That vanity forms a part of the Indian racter, we had ample proof this winter taking some portraits with the camera-lu A young female having unfortunately lost sight of one of her eyes, had ingeniously for a drop-curl, which effectually hid the blem and when, by drawing her flowing hair on side that her face might be the more perfe reflected on the paper, the defect was expo to our view, she was so exceedingly morti as for a long time to refuse sitting for her p trait, and then persisted in covering that perfection. Akaitcho, who had an excresce about the size of a pea upon his forehe seemed amused in the highest degree as long he thought its appearance on paper was inte ed as a caricature; but finding it remained he placed his finger over the representatic observing, with a smiling countenance, in t way it was năzōō (good); but withdrawing l finger, he said, in a contemptuous mann

năzōōlăh (bad). Green-stocking, the Indian belle represented in Franklin's Narrative, remarked, on presenting herself before the instrument, that she was now old, and therefore unworthy of being drawn. The sketch, however, was no sooner finished than she appeared highly delighted, and asked whether we thought the great chief in England (meaning Sir John Franklin) would remember her. It was not a little singular that I should have been the first to recognise Green-stocking; but, since my return to England, having compared the engraving of her from a drawing by the late Lieutenant Hood with my recollection of her countenance, I am not surprised at the circumstance. It must have been at the time it was taken a very faithful representation; for although much older and care-worn, the resemblance appeared to me exceedingly striking. Notwithstanding her state of ill health and inferiority to the other females of the tribe in exterior embellishments, (her increasing family having reduced her to abject poverty,) she still remained by far the prettiest woman among them.

Our store was speedily filled with provisions;

when the Indians, having been informed we did not require any further supply, took departure, some for Fort Chipewyan, and some for the western extremity of the lake; Thirrey, with his wives and children, alone maining.

CHAPTER XIV.

Early commencement of Winter.—Disagreeable Visitors.—Cunning displayed by the American Wolf.—Its Strength and Boldness.—Arrival of Mr. M'Leod and the Men to commemmorate the New Year.—Departure of Mr. M'Leod and his Party.—Ermine Burrows.—A captive Ermine.—Whiskey-Jack —Its Familiarity and Habits.—Arrival of Letters from England.—Occupations at Fort Reliance.—Arrival of George Sinclair and other Men.—A Skunk killed by Sinclair in his passage.—Short account of that Animal.—Skunk-bird.—The Introduction of Rice into America.—An account of the Mink. —A Party despatched to ascertain the practicability of obtaining the Sea Boat.—Singular Island.—Discovery of a magnificent Waterfall.—A Summer Visitor.—Burrowing Owl.—"Prairie Dog Villages."—Departure of Captain Back for England.—The Expedition consigned to my care.—Impracticability of obtaining the Sea Boat.—Preparations for Building a New Boat.—Pine-Martin, or Sable of the English Furriers. —Arrival of Men from the Fishery preparatory to the Departure of the Expedition for England.

By the latter end of November, just a month earlier than the previous year, the bay was frozen over in one solid mass as far as the

outer point to the south; which prevented the men from approaching the house beyond that spot in the boat from Tāl-thēl-lĕh, and obliged us to transport across the ice the whole of the cargo, consisting of white-fish, tullibee, inconnu, and trout, to the number of five thousand. The main body of the lake was nevertheless sufficiently unencumbered with ice to render the return of the men to the fishing-house by open water tolerably certain.

The odour of the fish brought us a number of visitors of the wolf kind; which increasing in numbers and consequent boldness, were to be met with at all hours, either prowling about the doors of our establishment, or sneaking along the shade of the thick woods, seeking whom or what they might devour. It was expedient, therefore, to shut up the dogs during the night. With a view of reducing the number of the marauders, we set several traps and a spring-gun, and in a very short time succeeded in killing ten, almost all of them being instantly devoured by their more fortunate companions.

A sufficient number still remained to occasion us considerable annoyance: they tore up our nets, and, from an artful manner of decoying our dogs within their reach, kept us in a constant state of alarm for their safety. By making their appearance, either singly or in pairs, on the ice in front of the house, the dogs were induced to venture towards them; when if one more eager in the pursuit appeared separated from the rest, the wolves immediately attempted to cut off its retreat. After this manner our little terrier was singled out and deliberately carried away, though within a few paces of us: the wolf making off so speedily with its prey, that, notwithstanding the weight attached to its jaws exceeded ten pounds, a considerable time elapsed before two of the men, who had started in pursuit, succeeded in overtaking it. Our little pet was still alive, but died a few moments afterwards; the whole of one side having been sadly mutilated before it was rescued.

Many facts are on record with regard to the strength and rapacity of the wolf. At

Great Bear Lake, during Sir John Franklin's second expedition, a wolf was seen to catch an arctic fox, *vulpes lagopus*, within sight of the wintering-house; and although immediately pursued by hunters on snow-shoes, it bore off its victim in its mouth without any apparent diminution of speed. Captain Lyon observed a wolf carrying a dead Esquimaux dog in his mouth, clear of the ground, at a canter, notwithstanding the animal was of his own weight. They have been known, when impelled by hunger, to steal provisions from under a man's head at night, and to enter a winter encampment and carry off some of the sledge-dogs. During Dr. Richardson's residence at Cumberland House in 1820, a wolf which had been prowling about the fort being wounded by a musket-ball and driven off, returned after it became dark, whilst the blood was still flowing from its wound, and carried off a dog from amongst fifty others, that howled piteously, but had not courage to unite in an attack on their enemy.

However pressed by hunger, the American wolf rarely if ever attacks man when alive. I never heard of such a case during my pro-

gress through the country; and Captain Lyon remarks, "From all we observed, I have no reason to suppose that they would attack a single unarmed man, both English and Esquimaux frequently passing them without a stick in their hands." They will, however, readily attack a corpse, and soon devour it if unmolested; of which I had proof in the Indian woman who died of cold during my first winter at Fort Reliance, some of the bones of her head having been found by me near her grave the following spring.*

It is notwithstanding an extremely timid animal: the mere tying a handkerchief or blown bladder to the branch of a tree, so as to wave in the wind, is sufficient to keep herds of wolves at a distance. The wolves in the North of Europe, upon the authority of Regnard, are equally cautious. "To prevent the wolves from destroying the rein-deer, says that author, "the Laplanders tie them to some tree, and it seldom happens that they are attacked in that situation; for the wolf, being a suspicious animal, is afraid that there

* From the foot-prints in the snow it was known to be a wolf that had dismembered the body.

should be some snare laid for him, and this is employed as a bait to draw thither."

Mr. M'Leod and all the men except according to previous arrangement, arriv the fort within two days of the clo December, for the purpose of conformi a custom originating with the traders i commemoration of the new year, by g to the people forming the establishmer sumptuous an entertainment as the seaso situation would permit. It is usual on first dawn of that day to fire several charges of musketry; which ceremony been observed by the servants of the Com for many years; but it was dispensed in our case, as we had no ammunitio squander. The men were regaled in evening with a preparation of meat and fried in butter, and as much rum as could well consume; for, in addition to remained from our last year's stock, we ceived a further supply of eight gallons by last remittance from York Factory. dancing and singing until daylight of

following morning, they retired to rest thoroughly happy;—so happy indeed, that their journey to Tāl-thēl-lĕh was necessarily postponed until the 3rd of January, when they commenced their return and left us to our former solitude.

Having observed, in the vicinity of the fort, the same sort of burrows in the snow described by Captain Lyon, which were similar in form to those appearing on the lands of England infested by moles, I set a trap for the purpose of securing alive the *mustela erminea*, stoat, or ermine, that had formed them. I succeeded in catching a male individual; but, to my sorrow, it was dead; the little creature having, in its exertions to make its escape, broken its lower jaw and one of its shoulders. This fierceness was quite in character with the observations of Captain Lyon on one of the same species which he had taken captive. "He was a fierce little fellow," says that lively writer, "and the instant that he obtained daylight in his new dwelling, he flew at the bars and shook them with the greatest fury, uttering a very shrill, passionate cry, and

emitting the strong musky smell* which I formerly noticed. No threats or teasing could induce him to retire to the sleeping-place; and whenever he did so of his own accord, the slightest rubbing on the bars was sufficient to bring him out to the attack of his tormentors. He soon took food from the hand, but not until he had first used every exertion to reach and bite the fingers which conveyed it. This boldness gave me great hopes of being able to keep my little captive alive through the winter; but he was killed by an accident."

In Newfoundland the stoat is said to be so bold as to commit its thefts in open view. In the time of Charlevoix, the white winter skins of the animal—in which state it is only properly called ermine—were exported from Canada, with other small furs, under the title of *menues pelleteries*. Although it is a common inhabitant of the North American continent, and everywhere extremely numerous, very few skins are imported to England by the Hudson's

* The trap-cage in which my animal was caught was strongly impregnated with the same odour.

Bay Company; for their value is so trifling as scarcely to repay the expense of collecting them. In Siberia and Norway, however, their skins are a considerable article of commerce; the animals being taken in the former country in traps baited with flesh, while in the latter they are either shot with blunt arrows, or taken as garden-mice are in England, by a flat stone propped by a baited stick, which falls down on the least touch and crushes them to death. The ermine, in winters of unusual severity, is said to migrate; but when within reach of a fur-post, it prefers domesticating itself in the habitations of the traders, where it may be heard the livelong night pursuing the *mus leucopus*, or white-footed mouse, on which it feeds.

All my attempts at trapping the smaller quadrupeds were frustrated by the thievish propensities of the *garrulus Canadensis*, or whiskey-jack, in carrying off the baits as soon as my back was turned. The whiskey-jack, which inhabits the woody districts to their limit north of Canada, hoards berries, pieces of meat and fish, in *hollow trees*, or between layers

of the bark of decaying birches, and is t
enabled not only to pass the winter in comf
but to rear its young much earlier than
other bird in the fur-countries. I saw yo
ones full-grown on the 10th of April, dif
ing from the plumage of the parent birds
not having the greyish-white marks about
head. Hearne states that the young take fli
about the middle of May, and are quite bla
but the birds I saw were of a blackish-gr
with the exception of the head and tip
the tail-feathers; the former being black,
the latter of a light grey. I strongly susp
that the *garrulus brachyrhynchus* of Swain
is merely the young of the whiskey-jack;
on that account I very much regret tha
specimen which I had prepared was left
accident on the banks of the Slave Riv
when with others laid out to dry, after hav
been soaked with water by the breaking
the boat. "Chēēzăh," as this bird is term
by the Copper Indians, possesses neither sy
metry of form nor beauty of plumage to end
it to man, as others of the feathered trib
but its extreme familiarity compensates

all. It was a constant attendant in our walks and encampments, uttering a plaintive squeaking note. No sooner was a fire lighted, than it made its appearance to feast upon the morsels of pemmican or fish that escaped either from the dogs or their masters, changing its voice at such times to a low chattering. Dr. Richardson, in giving a description of this bird, states that "there is nothing pleasing in the voice, plumage, form, or attitudes of the whiskey-jack; but it is the only inhabitant of those silent and pathless forests which, trusting in the generosity of man, fearlessly approaches him; and its visits were, therefore, always hailed by us with satisfaction. It is a constant attendant at the fur-posts and fishing stations, and becomes so tame in the winter as to eat from the hand; yet it is impatient of confinement, and soon pines away if deprived of liberty."

Our packet from England arrived without delay; which containing, in addition to our letters, files of periodicals and newspapers, afforded us at times amusement during the whole winter. An hour every night was devoted

to the instruction of the men, and Sunday held sacred as a day of rest, when divine service was read in the morning in English, and in the evening in French, for the benefit of those who did not comprehend the two languages. Every hour between six o'clock in the morning and midnight, the observatory was visited for the purpose of registering the state of the thermometer and position of the magnetic needle; and when the aurora was bright, we frequently sat up until two in the morning to watch its varying coruscations. The bartering with the Indians and arrangement of the men to their different duties—the writing our journals, taking the means of the temperatures, and other meteorological observations, fully employed our time; and very far from finding the winter tedious or dreary, I have frequently, amid these various occupations, exclaimed with the poet,

> "Oh! there is sweetness in the mountain air,
> And life, that bloated ease can never hope to share."

Early in March, George Sinclair with two other men arrived from the fishery, in order to complete a party of six for the purpose of conducting Captain Back to Fort Chipewyan.

Sinclair, in his passage from the Athabasca to Great Slave Lake, succeeded in killing a large-sized skunk, *mephitis Americana, var. Hudsonica;* which, from the circumstance of its having been found beyond the 61st parallel, is extremely interesting, as the limit reached by that animal was supposed by Doctor Richardson not to exceed the latitude of 56 or 57 North. A considerable number of animals of the genus *mephitis* found in America, owing to a difference in the number and variety of their stripes, have been described by authors as so many distinct species; but Baron Cuvier is of opinion that, in the present state of our knowledge of these animals, we are not warranted in considering them otherwise than as varieties of a single species; and of these varieties he has enumerated fifteen.

The animal now under consideration, which possesses long black hair, with a broad white stripe along each side, and a bushy tail, according to Richardson comes nearest to the description of the *viverra mephitis* of Gmelin; the *chinche* of Buffon; by which latter name it is known in Peru. Owing to the defence with which nature has furnished the skunk, and

which has already been alluded to, some of t
early French settlers most justly named
l'enfant du diable, others *bête puante*, and t
Swedes *fiskatta*. The fluid which this anim
has the power of ejaculating to a distance
several feet produces so stifling a stench, th
those persons whose clothes have become taint
with it are denied the rights of hospitality ev
by their relatives and friends. Kalm is said
have been almost suffocated by the odour of o
which was pursued into a house where he w
staying; and other persons have been so affec
ed by the vapour as to continue ill for sever
days. Indians have been known to lose the
eyesight in consequence of inflammation pr
duced by the fluid having been thrown int
them by the animal. The brute creation have
like dread of its effluvia: cattle will roar witl
agony; and the tracking-dog, which hunts i
eagerly at first, no sooner feels the effects of
single discharge of the nauseous liquor, than it re
treats with the utmost precipitation, and by way
of purification runs its nose into the ground.

One would naturally suppose, therefore, tha
the skunk would be the last animal selected by

man for his companion : but, far from this, I am given to understand that it is often tamed, and follows its master like a dog. It occasionally hibernates under the snow, but more frequently passes the winter in some of the Indian *caches* and feasts upon the industry of man. On removing the stones covering a hoard of provision, the animal, attracted by the noise, makes its appearance, when it may be readily killed by a sharp blow on the nose with a small stick. After this manner Mr. M'Leod informed me that he had killed several; and on no occasion had they discharged the noisome fluid which they secrete. I was subsequently informed by the Indians, that the skunk, when suddenly killed, is incapable of using the powerful defence with which nature has endowed this otherwise harmless animal. When thus deprived of life, if the bag containing the fluid, which is situated at the root of the tail, is instantly taken out, the flesh of the animal is highly esteemed and the skins made into tobacco-pouches.

To that singular bird the *emberiza oryzivora*, which is known in the United States by the

provincial names of bob-link, rice-bird, and reed-bird, the Cree Indians have applied the term of skunk-bird, from the similarity it bears to that quadruped in its white markings. The rice-bird enters Georgia from the southward in May, and in the early part of June reaches the 55th parallel, which is its farthest limit north, as, beyond that latitude, the wild rice, on which it feeds, is not found. These birds, according to Pennant, inhabit in vast numbers the island of Cuba, where they commit great ravages among the early crops of rice, which precede those of Carolina. As soon as the rice of that province is to their palate, they quit Cuba and pass over the sea in numerous flights directly north, and are very often heard in their passage, by sailors frequenting that course. Their appearance there is in September, while the rice is yet milky; and at that time they are said to commit such devastation, that fifty acres of the grain have been totally ruined by them in a short time. Although lean on arriving there, they soon grow so fat as to fly with difficulty, and when shot often burst with the fall. It is remarkable that among the myriads

that pay their autumnal visit to the Carolinas, there is never found a single cock-bird. This has been verified by careful dissection; and it is Pennant's opinion, therefore, that the females alone of this species of *emberiza* are entitled to the term of rice-birds.

Rice, the periodical food of these birds, is a grain of India, and was introduced into Carolina by a mere accident. In 1696, the master of a vessel from Madagascar landed about half a bushel of an excellent kind; from which small beginning sprung an immense source of wealth to the southern provinces of America. Within little more than half a century from that time, 120,000 barrels of rice were in one year exported from South Carolina; 18,000 from Georgia; and all from the remnant of a sea-store left in the bottom of a sack.

The *mustela vison*, vison weasel, or mink, next to the skunk, exhales the most fetid smell of all the North American animals. Pennant states, upon the authority of an author who wrote before his time, that the term "*mænk*" was given to this animal by a Swede who emigrated to America. It is a smaller

animal than the pine-martin; although, f
the greater length of its neck, it measures ne
as much from the nose to the tail. The tail
actly resembles that of an otter in form; wh
has very possibly given rise to the name
lesser-otter, by which some authors have des
nated it. Water is the favourite element
the vison, and both its form and the nat
of its fur are admirably adapted to its aqua
habits. When pursued, it generally seeks th
element for shelter; although on two
casions I saw it take refuge in the hole of
rock. Far from being a timid animal, it f
quently approaches a canoe out of curiosity;
which particular it resembles the musk-rat,
well as in its mode of swimming. By in
tating its call, not unlike the squeaking of
common mouse, it is readily drawn from i
retreats, and falls an easy prey to the hunter
Easily tamed, it is capable of strong attach
ment; but, like a cat, soon offended, and wi
on a sudden provocation bite those who a
most kind to it. Its fur, although fine, is no
prized in England; but in some parts of Asi
it is considered next in value to sable; and

amid the endless changes of fashion, it may sooner or later be equally esteemed in our own island. It preys upon small fish, fish-spawn, and fresh-water muscles; in the pursuit of which it remains under water for a considerable time. In severe winters, when the rapids and falls have been unable to resist the inclemency of the weather, the mink hunts mice on land; and if in the neighbourhood of civilization, makes great havoc in the poultry-yards of the farmers, by biting off the heads of fowls and sucking their blood. Kalm mentions that in the vicinity of the Carolinas it lurks amid the docks and bridges, where it proves a useful enemy to rats. It is also said to be very destructive to the tortoise, by scraping its eggs out of the sand and devouring them.

Four of the most experienced men were now despatched to Anderson's Fall, to make a careful survey of the surrounding country, with a view, if possible, of finding a track sufficiently level to admit of our sledging the boat across land to the house. From their report, however, that plan was altogether impracticable, scarcely any snow having fallen in the course of

the winter: the same impediments therefore of mountain and valley still existed as in the month of October, when we left that spot. Nevertheless, it was hoped the valleys might yet be filled up by a heavy fall of snow, whereby our chance of drawing the boat over the portage would be rendered in some measure feasible.

The men had visited, according to my directions, a rocky mountain, from which spot several of our party at different times had fancied they saw a thick column of smoke rising. I was more particularly induced to notice this circumstance because the Indians had described the phenomenon of a smoking rock somewhere to the north of our establishment; and a little beyond Icy River, some islands were observed, that seemed to owe their origin to volcanic action. One in particular, situated in the very centre of a strong current, and in deep water, was exceedingly conspicuous, being formed of stones rounded by attrition, and piled one upon another in a conical form to a height of twenty or more feet, not at all incrusted with lichens; a circumstance that would lead us to suppose it

to be of recent formation. With this exception, we observed no volcanic appearances along the whole course of the Great Fish River; and it is probable that this singular island owed its eccentricity to some peculiarity in the current, aided by the pressure of the ice in the spring.*

The smoke was found to be nothing more than the spray rising from a magnificent waterfall, far surpassing, in the opinion of the men, anything they had yet seen; which induced Captain Back to visit it. Parry's Falls, as they were designated after the distinguished navigator of that name, so far exceeded Captain Back's most sanguine expectations, that he described them as forming the most imposing spectacle he had ever witnessed; neither Niagara, the Falls of Wilberforce, nor the Mountain Fall in the Kamenistiquoia River, were to be at all compared with them.

The first summer visitor I secured was the *strix brachyota*, or short-eared owl, which appeared sitting, after its accustomed manner, on the lowermost branch of a young pine, watching, like a cat, most assiduously for mice.

* Islands precisely similar were observed in the Mississippi River.

In thus seeking its food, this owl is peculiar
others of the same genus, which fly in sea
of their prey. Like the American hawk-o
(*strix funerea*), it flies in circles round the fi
of the voyageurs, and is so bold as even to
tack man; when it fights with such determi
tion as to be frequently killed with stic
When disturbed, it takes but a short flig
seeking refuge in the dense thickets, whence
is not easily driven; although it occasiona
alights in a conspicuous situation, to reco
noitre its pursuer. According to some autho
unlike other birds of prey, it lays from ten
twelve eggs; and from a fact mentioned
Bewick, that twenty-eight individuals of th
species have been counted together in a turni
field, it is supposed to assemble in flocks pri
to leaving its breeding-places.

Probably the short-eared owl builds its ne
in the ground-like the *strix cunicularia*, or bu
rowing-owl, which, according to Lucien Bona
parte,* "is seen in small flocks in the neigh
bourhood of its holes." The burrowing-owl
instead of inhabiting venerable ruins, or tenant

* Lucien Bonaparte's American Ornithology, vol. i. p. 68.

ing the sombre forests, delights to dwell on open plains, in company with animals remarkable for their social disposition, neatness, and order. Say informs us that it resides exclusively in the burrows of a species of marmot, the *arctomys Ludovicianus*, wistonwish, or prairie-dog; whose excavations are so commodious as to render it unnecessary that this bird should dig for itself. The spots selected by the marmot for its habitation are termed, to the westward of the Rocky Mountains, where they assemble in numbers, "prairie-dog villages." These villages, which are very numerous and variable in their extent, are composed of slightly elevated mounds, having the form of a truncated cone, about two feet in width at the base, and seldom rising as high as eighteen inches above the surface of the soil. The entrance is placed either at the top or on the side, and the whole mound is beaten down externally, especially at the summit, resembling a much-used foot-path. An obliquely descending passage leads to an apartment where this industrious marmot constructs a cell for its winter's sleep. It is composed of fine dry grass,

globular in form, with an opening at top capa ble of admitting the finger; and the whole i so firmly compacted, that it might without in jury be rolled over the floor. Like others o the genus, on the approach of danger it sit erect to reconnoitre the movements of the ene my, but soon takes refuge in its subterranea chambers.

From the ruinous condition of the burrow tenanted by the *strix cunicularia*, compare with the neat and well-preserved mansion of the marmot, Say has inferred that this owl is eithe the unfriendly resident of the same habitatio with the prairie-dog, or that it is the sole oc cupant of a burrow acquired by the right of con quest. As it begins its flight, it utters a not so strikingly similar to the cry of the marmot that did not the burrowing-owls of the West Indies, where no marmots exist, utter the same sound, "it might be inferred that the marmot was the unintentional tutor to the young owl." *

The dogs and sledges being in perfect readi ness by the 20th of March, Captain Back took

* Bonaparte

his departure from Fort Reliance, in a cariole drawn by three fine dogs, and accompanied by six men laden with provision. At the moment of separation I received the following orders:

"Fort Reliance, March 20th, 1835.

"SIR,

"As it will be necessary for me to go by Canada in my way to England, I have to request that you will take the persons composing the expedition under your charge, and at the earliest opportunity convey to Fort Resolution, and make over to the Company's store, the two boats, and whatever surplus goods may remain belonging to it; being careful to give in an account of what you deliver, and to obtain a receipt for the same, signed by the gentleman who may be at that establishment.

"You will also have the goodness to inspect the account-book of Mr. M'Leod before you separate, so as to be able to explain anything that I may not comprehend; and as that gentleman may require a passage with you through the country, you are to afford him one as far as you can do consistent with the conveyance of

the boxes, &c. &c. &c. appertaining to the expedition.

"From Fort Resolution you will take an adequate supply of our pemmican to last you to York Factory in Hudson's Bay, at which depôt you will have no difficulty in procuring fair copies of the total accounts against the expedition, and which, together with all papers, notes, journals, or other documents, as well as specimens of whatever denomination made or collected during the expedition, will be directed to the Under Secretary of State for Colonies, with my name in the corner.

"If any of your crew should wish to remain at any particular post on the line of route between Fort Reliance and your ultimate destination, you are entirely at liberty to use your own discretion in permitting it or not, as may best suit your convenience; and with the remainder you will embark in the Company's ship for England, and acquaint me with your arrival at the Geographical Society's Rooms in Regent Street.

"It does not occur to me that I have any thing further to add, except the tender of my

thanks for the uniform attention that you have bestowed upon the health of the people, and the general manner in which you have made yourself useful throughout the whole of the service.

"I am, Sir,

"Your obedient servant,

"GEORGE BACK,

"Commander of the

"Arctic Land Expedition.

"Mr. R. King, Surgeon, &c. &c.
"Arctic Land Expedition."

Notwithstanding Captain Back was so thoroughly convinced of the impossibility of getting the boat to the fort as even to abstain from making the least mention of it in the orders he left me, I despatched M'Kay and Ross, two of the four men remaining at the house, to make a farther survey of the ground, leaving it to their discretion to absent themselves as long as should be requisite to determine the point. Of the two boats which I had directions to return into the Company's stores, one was situated at Tāl-thēl-lĕh—the other in

the bay fronting the house, and enveloped i
eight feet of ice: for, independently of i
having been frozen up, from the impossibility
hauling it on the beach in the fall, notwith
standing our whole force, assisted by sever
Indians, was exerted to that effect, the A-hē
dĕzzā, on the 2nd of March, by overflowing it
banks, covered the bay with water to a dept
of several feet; which becoming instantly frozen
hid the boat entirely from our view. The ne-
cessity of abandoning the craft did not require
a moment's consideration; for, by awaiting the
breaking up of the lake, provided the boat could
be repaired—which was extremely improbable,
since it must of necessity have burst from the
water that filled it expanding as it became
frozen—I could not calculate upon reaching Fort
Resolution before the first week in August, at
least a month after the last of the Company's
boats had passed. To embark then in one of
the cumbrous bateaux of the country would
have been useless, the men composing my party
being too few in number to drag it over the
portages; of which the traders are so fully aware,
that they always despatch two or more boats

together, that the powers of the united crews may overcome those difficulties.

On the return of the men it was found utterly impracticable to avail ourselves of the sea-boat: to remedy the evil, therefore, of passing another winter in the country, I determined upon burning her, to secure the necessary iron-work for building a new one, on the banks of the Slave River; convinced by such a procedure, that if I could but transport the property belonging to the expedition across the lake before the disruption of the western ice, I was pretty certain of effecting the main object of my orders. M'Kay and Ross were instantly despatched to Anderson's Fall for that purpose; and upon their return, no time was lost in forwarding the iron-work and three bags of pemmican to the carpenters at the fishery, with the necessary directions for their guidance.

A solitary pine-martin *(mustela martes)* was discovered by Ross near Parry's Falls; a great rarity in the neighbourhood of the barren grounds, the thickly-wooded districts being most congenial to its habits. In the pine-

forests it is found in such vast numbers, th
upwards of one hundred thousand skins a
annually imported by the Hudson's Bay Co
pany. The fur of the martin, owing to
fineness, has always been an important arti
of commerce, being frequently sold for sabl
and, when dyed, for other expensive furs.
is in the highest order in the winter time, wh
the lustre of the surface is considerable; b
at the commencement of summer, the da
tips of the hair drop off, which alters i
colour to a pale orange-brown with little lu
tre, and consequently, as the darkest ski
are most prized, of but little value. Thes
animals appear periodically in vast numbers
which the hunters regard as a forerunner
heavy falls of snow, and a season favourabl
to the chace.

The martin preys on mice, hares, small birds
eggs, and partridges; a head of the latter wit
the feathers being the best bait for the log
traps in which this animal is taken. Whe
pursued and its retreat is cut off, it shows it
teeth, sets up its hair, arches its back, and
makes a hissing noise like a cat; and although

it may be soon sufficiently tamed to acquire an attachment to its master, it never becomes altogether docile. They burrow in the ground, carry their young about six weeks, and bring forth from four to seven in a litter, about the latter end of April.

According to my directions to Mr. M'Leod, all the men from the fishery arrived on the 12th of April; having, to my utter surprise, neither seen nor heard anything of M'Kay and the other man, forwarded with instructions to the carpenters. In the course of the evening, however, they returned. They had lost their way, until fortunately falling upon the track of the main party, they were enabled to retrace their steps to the fort. Louison, who had been labouring under severe illness ever since he left us at the commencement of spring of the previous year, accompanied the party for the sake of placing himself under my care. In his situation, as interpreter at Fort Resolution, Captain Back had left Thomas Hassel, with instructions to follow him to Fort Chipewyan on the first opening of Buffalo

Creek, by which there exists a short route to the Athabasca Lake; but, being impeded by a portage of seven miles, it is only practicable for the passage of canoes.

CHAPTER XV.

Departure for England.—Pine Bullfinch.—Formation of a Winter Encampment.—Arrival at Tăl-thĕl-lĕh.—An invalid Indian Woman.—An account of the North American Bears.—Their Ferocity very much overrated.—Their Fear of Man.—The Polar and Grisly Species easily rendered ferocious by provocation.—Instances recorded of the great power and tenacity of life displayed by these animals.—Incapability of the Adult Grisl Bears to climb Trees.—Fat Male and Pregnant Female Bears alone hibernate.—Situation of their Dens.—Migration of the Lean Bears.—Period of hibernation.—Bears feed indiscriminately upon Vegetable and Animal Matter.—An extraordinary circumstance regarding these animals.—The Polar Bear known to Naturalists at a very early period.

On the 14th of April, having secured several pieces in the store, I left Fort Reliance, accompanied by the whole party, conveying a weight altogether with provision and baggage of two thousand pounds. We formed quite a procession on the lake, following one another in regular file, so as to benefit by the beaten path

of the foremost man and sledge; each taking his turn to lead the way, or beat the track, as it is termed; which duty, when the snow is deep, proves extremely laborious. At the encampment in the evening I killed a pine-bullfinch (*loxia enucleator*), from the summit of a lofty pine, where it was perched singing. A month later of the previous year I shot several at Fort Reliance; and an Indian brought me a specimen which he had procured at Artillery Lake. Dr. Richardson mentions the 60th parallel as its limit north; but since those obtained by me were in a much higher latitude, it probably extends to the farthest woods. This bird, which is the largest species of its family yet known, may be easily overlooked, from its habit of frequenting only the gloomiest recesses of the pine-forests, where it feeds on the seeds of the white spruce. The pine-bullfinch is an inhabitant of the northern parts of Europe, and frequents Siberia and the north of Russia in such numbers as to be sold in the market-places.

The formation of a winter encampment consists in clearing from snow a square piece of

ground sufficiently large to contain the party, and covering the space with pine-branches, over which the blankets are spread, and around the whole a fence composed of logs of wood about three feet high is built. A fire, formed of dried pine-sticks, placed lengthways, is so situated as to divide the square into two equal parts, on either side of which the party station themselves feet to feet, and by keeping a good fire, can thus sleep in warmth and comfort, with the heavens only for a canopy, although the thermometer may indicate a temperature many degress below the freezing point of mercury. The dogs, as soon as the party have stowed themselves snugly under their blankets, creep in to claim a share of the woollen covering, and by that means both communicate and receive heat.

The arrival at a place of encampment affords immediate employment to the whole party, each being allotted a respective duty: some betake themselves to the woods to collect pine-branches for flooring the hut, and fuel for the night; whilst others are occupied in seeking blocks of ice to melt into water, or shovelling

away the snow with their snow-shoes. The dogs alone are idle during this scene of bustle, remaining harnessed to their burdens until the men find leisure to unload the sledges, and suspend to the branches of the nearest trees every kind of provision as far as possible out of their reach; for, independently of being but ill-fed, they are so wolfish in their propensities for thieving, that although the *voyageurs* frequently make a pillow of their food, these indefatigable marauders manage to purloin it. Nor are the men less cautious of their moccasins and sledge-traces, which the dogs, like their masters, have learned by dearly-bought experience to be capable of affording nutriment.

By the contraction of the ice at low temperatures, wide chasms are formed in the lake; and by the expansion of the ice again during the warmer weather, large blocks of that iron-ribbed substance are forced up so as to form walls sometimes twenty feet high, which frequently extended the whole breadth of the lake and obliged us to make several portages. We nevertheless reached the fishery at Tāl-thēl-lĕh on the 19th of April, when a few of the men

were instantly sent back to Fort Reliance for the remainder of the baggage, while the others would proceed with me to Fort Resolution. My first care was to attend to an invalid Indian woman, whose spine was so severely injured by a blow inflicted by her inhuman husband as to render her incapable of walking. The recumbent position necessary for her recovery was, owing to the roving habits of her tribe, quite out of the question; and no provision being made by the Hudson's Bay Company for such unfortunate creatures, her case was of course utterly hopeless.

The snow had entirely disappeared from off the land at this part of the lake, and the black bear already sallied forth on its summer wanderings. Associated with this and other species, there are so many facts interesting, not only in themselves, but in comparing the habits of the North American Indians with those of the Laplanders, that I am sure I shall be pardoned for giving a more lengthened description of these animals than the limit of this work would allow me to give to others, perhaps scarcely inferior in interest.

So much doubt has arisen with regard to the different kinds of bears inhabiting the American continent, that further investigation is requisite before any just conclusions can be drawn as to what are species, and what are mere varieties. It is, however, the general opinion of late naturalists, that there are two or more species in the northern parts of the new world differing specifically from those of the old continent.

The *ursus Americanus*, or black bear, is not only the smallest, but it is the most timid, of the American species; for it will seldom face a man unless it is wounded, has its retreat cut off, or is urged by affection to defend its young. The female has been known to confront her enemy boldly until she had seen her cubs attain the upper branches of a tree in safety, but in fact leaving them an easy prey to the hunter. The Indians affirm that the mere tying of a gun-cover, neckcloth, or anything that has been long in the possession of man, round the body of the tree, is sufficient to hold captive for several days not only the young, but the more adult animals. On attempting to descend, they

no sooner come in contact with the simple barrier than they seek refuge again in the highest branches of the tree, renewing their attempts to escape from time to time until, worn out by fear and famine, they drop to the ground.

Notwithstanding the *ursus arctos*, or barren-ground bear of Richardson, is said to be so dreaded by the Indians, "that they carefully avoid burning bones in their hunting excursions lest the smell should attract it," it is evidently a very harmless animal, as all the individuals seen by Franklin's party fled at once. The grisly bear (*ursus ferox*), notwithstanding its specific name, and the *ursus maritimus*, or polar bear, of which such dreadful accounts have been given by the early writers, are likewise extremely inoffensive if not provoked. I assert this not only upon the credit of very many Indians with whom I conversed on the subject, but upon the testimony of Mr. Andrew Graham, one of Pennant's ablest correspondents, as well as other writers.

Mr. Drummond, the botanist attached to Sir John Franklin's second expedition, in his excur-

sions over the rocky mountains, frequently came suddenly upon one or more creatures of the grisly kind. On such occasions they reared on their hind legs, and made a loud noise like a person breathing quickly, but much harsher. He kept his ground without attempting to molest them, and they on their part whirled round and galloped off. Also, in a manuscript account of Hudson's Bay, written about the year 1786 by Mr. Graham, is the following anecdote: "One of the Company's servants who was tenting abroad to procure rabbits,* having occasion to come to the factory for a few necessaries, on his return to the tent passed through a narrow thicket of willows, and found himself close to a white bear lying asleep. As he had nothing wherewith to defend himself, he took the bag off his shoulder and held it before his breast, between the bear and him. The animal arose on seeing the man, stretched himself and rubbed his nose, and having satisfied his curiosity by smelling at the bag which contained a loaf of bread and a rundlet of strong beer,

* The fur-traders call the *lepus Americanus* or American hare, "rabbit."

walked quietly away, thereby relieving the man from his very disagreeable situation." *

When provoked or wounded, however, all bears, particularly the polar and grisly species, are extremely ferocious; and what renders them most dangerous assailants is their amazing strength, of which a just estimation may be formed from the fact that an individual of the latter kind has been known to drag to a considerable distance the carcass of a buffalo, weighing about a thousand pounds; and in Barentz's Third Voyage in search of a North-east Passage to China, a story is told of two polar bears coming to the carcass of a third one that had been shot, when one of them taking it by the throat, carried it to a considerable distance over the most rugged ice, where they both began to eat it.

Of the great power and tenacity of life displayed by the polar bear, the same navigator had proof during his second voyage on the island of Nova Zembla, which is thus mentioned in Churchill's Collection of Voyages :—" On the 6th of September 1594, some sailors landed

* Fauna Borealis, vol. i. p. 31.

to search for a certain sort of stone, a species of diamond. During this search, two of the seamen lay down to sleep by one another, and a white bear, very lean, approached softly and seized one of them by the nape of the neck. The poor man, not knowing what it was, cried out, 'Who has seized me thus behind?' on which his companion, raising his head, said, 'Holloa, mate, it is a bear!' and immediately ran away. The bear having dreadfully mangled the unfortunate man's head and sucked the blood, the rest of the persons who were on shore, to the number of twenty, immediately ran with their matchlocks and pikes, and found the bear devouring the body, which on seeing them ran upon them, and carrying another man away, tore him in pieces. This second misadventure so terrified them, that they all fled. They advanced again, however, with a reinforcement; and the two pilots having fired three times without killing the animal, the pursuer approached a little nearer and shot the bear in the head close to the eye. This did not cause him to quit his prey; for, holding the body which he was devouring always by

the neck, he carried it away as yet quite entire. Nevertheless they then perceived that he began himself to totter; and the pursuer and another man going towards him, gave him several sabre-wounds, and cut him to pieces without his abandoning his prey."

Mr. Rowand, a factor of the Hudson's Bay Company, in charge of a post on the banks of the Saskatchiwine, who has had more hair-breadth escapes from grisly bears than any single individual on record, related to me a case of one of that species attacking a party of *voyageurs* while bivouacking round a fire, and having carried off one of the company, fractured his arm and otherwise injured him before he was rescued. As the same tale has been described both by Doctor Richardson in his "Fauna Borealis," and Ross Cox in his work entitled "Adventures on the Columbia River," it would be needless to repeat it at length here. An Indian on the Saskatchiwine was scalped by a single stroke of a grisly bear's paw, and rendered blind owing to the displaced skin being allowed to remain hanging on his cheeks until it ultimately adhered. Nevertheless the

unfortunate man was of opinion that his eyes were uninjured, and that a surgical operation would restore his sight. Among almost every tribe I visited there were a few that presented the effects of bear encounters, either in the loss of considerable portions of their flesh, or in the distortion of their legs and arms, which in some instances resembled the letter S.

It is fortunate that the grisly bear, the most formidable species that the inland Indians have to contend with, is incapable of climbing trees. Two instances are related by Lewis and Clarke, in their Journey up the Mississippi, where a hunter sought shelter in a tree in safety from its pursuit, although held a close prisoner for many hours by the infuriated animal; and Mr. Drummond, having mortally wounded a female in the season of love, was kept a prisoner for a short time by the enraged male, who reared against the trunk of the tree, but made no attempt to climb up. The Indians attribute this peculiarity to the form and length of its claws, in which it differs from other bears; and this is the more probable, since it is well known

that the young cubs can climb with a facility that a cat might envy.

The natives affirm that a bear never retires to its den until it has acquired a thick coat of fat; and that when it comes abroad in the spring it is equally fat, though in a few days thereafter it becomes very lean. They also assert that the fat male and pregnant female bears alone hibernate, which is confirmed by the statements of several writers. "In very severe winters," says Pennant, "great numbers of bears have been observed to enter the United States from the northward. On these occasions they were all lean, and almost all males: the few females which accompanied them were not with young." Fabricius states that polar bears are frequently seen in Greenland in great droves, where, attracted by the scent of the flesh of seals, they will surround the habitations of the natives and attempt to break in, but are soon driven away by the smell of burnt feathers. The Esquimaux of Melville Peninsula, we are further informed by Captain Parry, derive a considerable portion of their subsistence from

the male polar bears that they kill when roaming at large at all periods of the winter. In Hearne's account of the same animal, in which he is borne out by the observations of Graham, we are acquainted that the males leave the land in the winter time, and go out on the ice to the edge of the open water in search of seals, whilst the females burrow in deep snow-drifts from the end of December to the end of March, remaining without food and bringing forth their young during that period; that when they leave their dens in March, their young, which are generally two in number, are not larger than rabbits, and make a foot-mark in the snow not bigger than a crown-piece.

The polar bear, upon the authority of Graham, takes up its residence under the declivities of rocks, or at the foot of a bank where the snow-drifts are deep: a small hole for the admission of fresh air is constantly observed in the dome of its den. The black bear and its varieties, on the contrary, generally select a spot for their dens under a fallen tree, and having scratched away a portion of the soil, retire to them at the commencement of a snow-

storm, where the snow soon furnishes them with a close, warm covering. The breath of the animal makes a small opening in the den which betrays its retreat to the hunter; but this is so situated as frequently to escape the lyncean eye of an experienced Indian hunter. In the more southern parts they occasionally retreat to the hollow of an ancient tree, in which situation one was found by Mr. Alexander Henry, one of the first Englishmen who penetrated into the fur countries after the reduction of Canada under the British arms.

"In the course of the month of January, whilst on the banks of Lake Michigan," says that gentleman, "I happened to observe that the trunk of a very large pine-tree was much torn by the claws of a bear, made both in going up and down; and on further examination I saw that there was a large opening in the upper part, near which the smaller branches were broken. From these marks, and from the additional circumstance that there were no tracks on the snow, there was every reason to believe that a bear lay concealed in the tree. On returning to the lodge I communicated my

discovery; and it was agreed that all the family should go together, in the morning, to assist in cutting down the tree, the girth of which was not less than three fathoms. In the morning we surrounded the tree, both men and women, as many at a time as could conveniently work at it; and there we toiled, like beavers, till the sun went down. This day's work carried us about half-way through the trunk; and the next morning we renewed the attack, continuing it till about two o'clock in the afternoon, when the tree fell to the ground. For a few minutes everything remained quiet, and I feared that all our expectations were disappointed; but as I advanced to the opening, there came out, to the great satisfaction of all our party, a bear of extraordinary size, which, before she had proceeded many yards, I shot."*

As the black bear retreats as soon as the snow begins to lie on the ground, and it does not go abroad again until the greater part of the snow has disappeared, the period of its hibernation will of course depend upon the length of the winter. In latitude 65 the

* Henry's Travels, p. 142.

winter repose lasts from the beginning of October to the first or second week of May; but on the shores of Lake Huron the period is from two to three months shorter. The grisly and polar bears seem to be more hardy, for they wander abroad long after the ground is covered with snow, and make their appearance some time before it begins to melt. Graham mentions November as the period that the polar bear retires to its winter-quarters, and that it leaves its den in the month of March, when the cubs are as large as shepherds' dogs.

The total length of an adult black bear is about five feet, and the barren-ground bear seldom exceeds it by more than an inch. The grisly or polar bears, however, are of a much greater size; for Lewis and Clarke mention an individual of the former species as measuring nine feet from the nose to the tail, affirming that they had seen a still larger one; and De Witt Clinton, who was the first naturalist that pointed out the difference between that animal and the other American bears, received an account from an Indian trader of one fourteen feet long. Nine feet in length, and four

feet and a half in height, has been given as the size of the polar bear; although a less dimension by a foot would possibly be more accurate, since in two specimens measured by Captains Lyon and Ross, the one gave eight feet seven and a half inches only as the total length, and the other but seven feet ten inches. The older *voyageurs* have enumerated individual cases of enormous size, but which has been supposed to originate from the skin having been measured after it was removed from the body, when it is known to be capable of stretching several feet. M'Kenzie mentions the foot-marks of a grisly bear as being nine inches long and proportionably wide; and from the weight of the animal often causing the snow when encrusted by a partial thaw to crack and sink for a yard or more around it, the inexperienced have been led to regard it as the vestige of an enormously large quadruped. "Many reports," says Dr. Richardson, "of the existence of live mammoths in the rocky mountain range have, I doubt not, originated in this manner."

The American bears feed indiscriminately upon animal and vegetable matter; the *ursus mari-*

timus preferring the former, and all the other species the latter. In the stomach of a black bear Dr. Richardson found the remains of a seal, a marmot, a large quantity of the sweet roots of some *astragali* and *hedysara*, together with some berries and a little grass.

The Indians and traders to a man affirm, that notwithstanding one thousand or more skins are annually procured from black bears destroyed in their winter retreats, a bear was never killed with young. The circumstance is mentioned in Pennant's Arctic Zoology,* upon the authority of both Lawson and Catesby; but it has been very improperly discredited or neglected by late writers. I have been informed that the young of the black bear have been found by the Indians not larger than a musk-rat; which, if the difference in size of the parent animals is taken into consideration, is confirmed by Hearne's account of the young of the polar bear. According to Richardson, the black bear brings forth early in January: admitting therefore the growth of these creatures for two months to be somewhat slower than other

* Vol. i. p. 60.

known animals, still there is good reason to believe that when first born they are extremely diminutive. As the Indians have invariably found a mass of disorganised matter, although they failed in tracing it to anything like a fœtus, I would suggest, for further investigation, whether or not these animals produce their young in a state of embryo? Very many queries regarding this subject will readily occur to the mind of every one, but I think the majority will be answered by the fact, that in North America bears are not worried to death, but are despatched instantly. The hunter makes a noise at the entrance of the den until the stupid animal puts forth its head, when a mortal wound is implanted in its forehead.

Notwithstanding this animal came under the notice of naturalists at a very early period, there is much, in all probability, yet to be learned regarding its peculiarities. The polar bear became part of the royal menagerie as early as the reign of Henry III. There are two writs extant from that monarch, directing the sheriffs of London "to furnish sixpence

a day to support our white bear in our Tower of London; and to provide a muzzle and iron chain to hold him when out of the water, and a long and strong rope to hold him when he was fishing in the Thames."*

* Madox's Antiquities of the Exchequer, vol. i. p. 376.

CHAPTER XVI.

Anecdotes of the Indians with regard to Bears.—Extraordinary fatness of the Bear.—Gluttony ascribed to the Esquimaux in a certain degree accounted for.—The Manners and Customs of the North American Indians compared with the Laplanders and others.—Combats between the Polar Bear and the Walrus. —Departure from Tāl-thēl-lĕh and Arrival at Fort Resolution. —Indian Gamesters.—Grey and Red Sucking-Carp, Methy, Denizen of the Northern Lakes, Tullibee, and Gold Eye.—The Okow and American Sandre proved to be the same species. —Arrival of Mr. M'Leod and his Family.—Important service rendered by Mr. Hutchinson.—Certain Indications of the advance of Spring.—Canada, Snow, and Laughing Geese.

THE chase of the bear is considered by the natives of North America as a matter of the highest importance; they frequently propitiate them by speeches and ceremonies, and if they succeed in slaying one, they treat it with the utmost respect, speak of it as of a relation, offer it a pipe to smoke, and generally make a speech in exculpation of the act of violence they have committed in slaying it. The women of the

Chipewyan and Dog-rib tribes will not touch a bear's skin, nor even step over it; so that one spread at the door of a tent is an effectual barrier against female intruders. Necklaces of the claws of a grisly bear are highly prized by the Indian warriors, as proofs of their prowess; and in their dances they frequently imitate the gestures and actions of that animal. The claws of a bear are used for gambling purposes, and when properly prepared it is extremely difficult to obtain them from the Indians, but upon what ground I was unable to learn. Mauffley after much entreaty presented me with a set, but previously exacted a promise that I would never part with them.

Mr. Alexander Henry mentions the case of some Indians, who being present at the death of a bear which he shot, "took its head in their hands, stroking and kissing it several times; begging a thousand pardons for taking away its life; calling it their relation and grandmother, and requesting it not to lay the fault upon them, since it was truly an Englishman that had put it to death. This ceremony was not of long duration; and if it was I that

killed their grandmother, they were not themselves behind in what remained to be performed. The skin taken off, we found the fat in several places six inches deep. This being divided into two parts, loaded two persons, and the flesh parts were as much as four persons could carry.* In all, the carcass must have exceeded five hundred weight. As soon as we reached the lodge, the bear's head was adorned with all the trinkets in the possession of the family,—such as silver armbands, and wristbands, and belts of wampum,—and then laid upon a scaffold set up for its reception within the lodge. Near the nose was placed a large quantity of tobacco."

"The next morning no sooner appeared than preparations were made for a feast to the manes. The lodge was cleared and swept, and the head of the bear lifted up, and a new Stroud blanket, which had never been used before, spread under it. The pipes were now lit; and Wamatam" (an Indian Mr. Henry speaks of as his benefactor and friendly adviser) "blew tobacco-smoke into the nostrils of the bear. At

* Fifteen or sixteen gallons of pure oil have been melted from a *single* bear.—Bartram's Journey, E. Florida, p. 26.

length the feast being ready, Wamatam made a speech, resembling in many things his address to the manes of his relations and departed companions; and we then all eat heartily of the bear's flesh." *

Charlevoix states that the American Indians on killing a bear give a great entertainment, and make a point to leave nothing. The feast is dedicated to a certain genius, perhaps that of Gluttony, whose resentment they dread if they do not eat every morsel, and even sup up the very melted grease in which the meat was dressed. They sometimes eat till they burst, or bring on themselves some violent disorders. The first course is the greatest bear they have killed, without even taking out the entrails or taking off the skin, contenting themselves with singeing the skin, as is practised with hogs. The Esquimaux have been charged with excessive gluttony by Sir John Ross and others, and it is for their information that I have inserted the foregoing paragraph, because I think it more than probable that those people have been induced to consume the quantities of food

* Henry's Travels, p. 142.

attributed to them from some such cause. It must be admitted that before a traveller can draw anything like a conclusion as to the manners and habits of a nation, he should either comprehend their language or have the means of interpretation. With the exception perhaps of that information which has been gained by the missionaries, almost all our knowledge regarding the Esquimaux has been gathered by mere signs, assisted by a very slight vocabulary of words; and yet late travellers have been ungenerous enough to send forth to the world statements which I do not hesitate to pronounce as ill-digested, and I may even say unfounded, to the prejudice of a very intelligent people.

It is interesting to observe how similar is the feeling with regard to these creatures among tribes widely separated, but particularly with the Laplanders. According to Regnard, the chase of the bear is the most solemn action of the Laplander, and the successful hunter may be known by, and exults in, the number of tufts of bear's hair he wears in his bonnet. When the retreat of a bear is discovered, the ablest

sorcerer of the tribe is consulted as to the manner of attack. During the attack, the hunters join in a prescribed chorus, and beg earnestly of the bear that it will do them no mischief. When they have killed it, they put the body into a sledge to carry it home: the rein-deer which has been employed to draw it is exempted from labour during the rest of the year, and means are also taken to prevent it from approaching any female. A new hut is constructed expressly for the purpose of cooking the flesh; and the huntsmen, joined by their wives, begin with their songs of joy, and of thanks to the animal for permitting them to return in safety. We are further informed that the Laplanders term the bear the "dog of God," because they esteem it to have the strength of ten men and the sense of twelve. They never presume to call it by its proper name of guouzhga, lest it should revenge the insults on their flocks; but style it *mœdda aigia*, or the "old man in the fur cloak."* They take great care never to bestow on their females a part of the rump of a bear; neither

* Arctic Zoology, vol. i. p. 65.

will they deliver to them the meat through the common entrance of the hut, but through a hole in another part. A similar custom prevails among some of the North American tribes with regard to the moose-deer. The Indians on approaching their camp pluck out the eyes of the animal and drag it into the tent from under the eaves, and not by the door. Pennant acquaints us that the bear is the great master of the Kamskatkans in medicine, surgery, and the polite arts. They observe the herbs he has recourse to when ill or wounded, and acknowledge him as their dancing-master, mimicking his attitudes and graces with great aptness.

The polar bear is at constant enmity with the walrus, and frequently both the combatants perish. "On one occasion," says Captain Lyon on the credit of an Esquimaux, "a bear was seen to swim cautiously to a large rough piece of ice, on which two female walruses were lying asleep with their cubs. The wily animal crept up some hummocks behind the party, and with his fore-feet loosened a large block of ice: this, with the help of his nose and

paws, he rolled and carried until immediately over the heads of the sleepers, when he let it fall on one of the old animals, which was instantly killed. The other walrus with its cubs rolled into the water; but the younger one of the stricken female remained by its dam: on this helpless creature the bear now leaped down, and thus completed the destruction of two animals which it would not have ventured to attack openly."

"The stratagems practised in taking the large seal are not much less to be admired. These creatures are remarkably timid, and for that reason always lie to bask or sleep on the very edge of the pieces of floating ice, so that on the slightest alarm they can by one roll tumble themselves into their favourite element. They are extremely restless, constantly moving their head from side to side, and sleeping by very short naps. As with all wild creatures, they turn their attention to the direction of the wind, as if expecting danger from that quarter. The bear, on seeing his intended prey, gets quietly into the water, and swims until he is leeward of him, from whence by frequent short

dives he silently makes his approaches, and so arranges his distance, that at the last dive he comes up to the spot where the seal is lying. If the poor animal attempts to escape by rolling into the water, he falls into the bear's clutches : if, on the contrary, he lies still, his destroyer makes a powerful spring, kills him on the ice, and devours him at leisure." In the "Fauna Greenlandica" of Fabricius there are corresponding accounts.

I started on the morning of the 22nd with eight men and a weight of eight hundred pounds, comprising iron-work, tools, and provisions, determined not to be a drag on the Company's posts with regard to food if it could possibly be helped, and early on the 26th of April arrived at Fort Resolution. Three of the men were sent back on the following day to the fishery, to await the arrival of the men from Fort Reliance, when the whole party, accompanied by Mr. M'Leod and his family, were to return to me laden with a further supply of provision. Ross and Carron I retained to assist in making as large a collection of plants and specimens of natural history

as this barren spot would permit; while the carpenters had directions to commence immediate preparations for building the boat.

An insatiable disposition for gambling exists even in the wilds of the northern regions; for one of the hunters to Fort Resolution had just before my arrival lost the whole of his property at "platter," one of the most intricate games that is played by the North American Indians. The natives form a sort of dice of the claws of a bear, cut flat at their large end, into which a small quantity of lead is introduced; lines are then traced thereon, and in playing, the manner in which they happen to alight on the barken dish or platter indicates the number of counters the player is to receive from his adversary, those that remain in an erect position reckoning the most. Whole nights are devoted by the hunters to this destructive sport; nor will they refrain from staking their most valuable articles, even to the last grain of powder and shot they possess. The Stone and Black-feet Indians, from the facility with which they obtain food, having abundant leisure, are especially addicted to gambling; and their

favourite "puckesann" is an amusement somewhat similar to the one just described. It consists in tossing on the ground, from a barken dish, several stones of a species of *prunus*, termed, from this circumstance, *puckesann-meena;* the difficulty of which lies in guessing the number.

An abundant supply of fish was daily brought to the fort from Buffalo Creek, chiefly consisting of *catastomus Hudsonius* and *Forsterianus*, grey and red sucking-carp. These species vary in weight from five to seven pounds, inhabit all the fresh waters of North America, frequenting the rivers, and even the land-locked marshes and ponds, but preferring shallow grassy lakes with muddy bottoms. As soon as the ice breaks up, they are to be seen in myriads, forcing their way up rocky streams and surmounting strong rapids, to arrive at their spawning-places in stony rivulets; when they may be readily speared or even taken by the hand in shallow rivers. Although they are soft and watery, and therefore little prized as food, they make a more gelatinous soup than any other of the northern fish, and, as I have mentioned elsewhere, form the best bait for

trout or pike. Like their congeners, they are singularly tenacious of life, and may be frozen and thawed again without being killed.

Of all the fish that are caught in the several districts of the fur-countries, the *lota maculosa*, or methy, is by far the most disagreeable; so much so indeed, that dogs, accustomed in that country to feed on the offal of every other kind of fish, will not touch any part thereof even when pressed by hunger. The methy, or loche, as it is designated by the Canadians, is extremely voracious, preying on all kinds of fish, which it takes chiefly in the night; and to such a degree do they fill themselves with a favourite food, a species of cray-fish, that the form of their bodies is at times quite distorted, the soft integuments of their bellies admitting of great dilatation. Its roe, however, is an exception to its nauseous flavour; for being composed of minute ova, if beaten up with a small quantity of flour, it makes most excellent bread, and when cooked alone, forms cakes that would be palatable even to an epicure.

We were fortunately not obliged to partake of such inferior food, as the season for taking

that denizen of all the northern lakes, the *salmo namaycush*, was not yet over. This magnificent trout is caught from March to May in great abundance by baited cod-hooks, set through holes in the ice in eight or nine fathoms water,—during the autumn in nets; and when it leaves its habitual residence, the deepest parts of the lakes, for the shallows to spawn, it is speared at night by torchlight. Very few are taken by the latter mode, since their stay for the purpose of depositing their ova rarely exceeds three weeks. This tyrant of the lakes (for no fish inhabiting the same waters can resist its voracity) far surpasses the common salmon in size, individuals having been captured weighing sixty pounds; and it is even said to attain one hundred and twenty, although none came under my own observation exceeding a weight of fifty pounds. When in good condition it yields much oil, the flesh appearing reddish or orange-coloured, but getting paler as it goes out of season: at all times, however, the stomach when boiled is a favourite morsel, especially with the Canadian *voyageurs*.

The *coregonus tullibee*, which very much

resembles the white fish not only in appearance but in its general habits, was not found so abundantly here as at Tāl-thēl-lĕh and Gāh-hŏŏă-tehēllĕh; although every day one or more individuals were brought to the fort. This fish was not previously supposed to exist so far north; although now it may even be an occasional visitor at the mouth of the M'Kenzie, and, like the *coregonus quadrilateralis,* an inhabitant of both salt and fresh water.

A solitary specimen of that singular and beautiful little fish, the *hiodon chrysopsis,* naccaysh or gold-eye, was hooked in the Slave River by an Indian, and brought by me to England; a fact proving that the species takes a wider range than has hitherto been ascribed to it, the 53rd or 54th parallels having been mentioned by Richardson as its northern limit.

During my passage into the country I ascertained also another fact, extremely interesting both as regards the relative distribution of fish in the different lakes and their connecting streams intersecting the country, and as regards a doubt which has long existed, whether the *perca fluviatilis,* okow, or horn-fish of Richard-

son, is identical with the *lucioperca Americana*, or American sandre. "Few of the *percoideæ*," says Dr. Richardson, "attain high latitudes; none of them go to the north of the 50th parallel; while the okow inhabits the rivers and lakes of the fur-countries up to the 58th parallel, and is, in all probability, the same species with *lucioperca Americana*. Specimens that I prepared at Cumberland House in 1820 would have enabled me to decide the matter, but they have been accidentally destroyed." The okow, which is called *doré* by the Canadians, I found beyond Fort Lac la Ronge, where they were so numerous, that I caught thirty-two in about as many minutes, with a hook baited with a small piece of fat. The head and bronchia of one which I brought home has been designated by Dr. Richardson as *lucioperca Americana* in the appendix to Captain Back's Narrative; a convincing proof of the identity of the species.

On the 10th of May, Mr. M'Leod arrived with his family, accompanied by the whole party, conveying altogether eight hundred pounds

weight of baggage and provision. From the very moment of Captain Back's departure up to the present period, the men had been actively employed in conveying the property of the expedition; yet, from the rotten state of the ice at this extremity of the lake, it was evident the whole of the baggage could not be transported before its disruption might be expected to take place. In this dilemma the assistance rendered to the expedition by Mr. Hutchinson, of the Company's service, was of the utmost importance. He at once undertook to give me a receipt for the boat and every article that had been in use, such as nets, iron-work, and the like, forming a large proportion of the returns mentioned in my instructions from Captain Back, on condition that I should send three Indians, at an expense of fifteen skins each, with directions to embark the whole on the opening of the lake, and then proceed without delay for the establishment. It only remained therefore to convey the other twenty-seven pieces; and as the ice was bare of snow, I ordered six runners to be made, and having

hired ten dogs in addition to those belonging to the expedition, so as to place four in each, the men forthwith departed.

It was not before this period that the return of the swans, geese, and ducks gave certain indications of the advance of spring, arriving according to their respective families : the *anser Canadensis* or Canada goose led the van, followed by the *anser hyperboreus et albifrons*, snow and laughing-goose. The Canada goose, called "outarde" by the Canadians, and bustard by the Hudson's Bay settlers, is anxiously looked for by those traders and Indians who reside in the woody and swampy districts, as during the summer they depend principally upon it for subsistence. It makes its first appearance in flocks of twenty or thirty, which are readily decoyed within gun-shot by the hunters, who set up the first birds they procure, as stales to entice the others to alight, and imitate its call by shouting out at the pitch of their voices the word "wōō-hŭck" frequently repeated. The silly birds instantly bend their course towards the sound of attraction, and whirling about the place, generally lose one or more of their num-

ber. Greater havoc is made by the more judicious plan, as soon as the wedge-formed flock is seen from afar, of concealing themselves among the long grass or thick brushwood, where they are enabled to call the birds from a very great distance, and so frequently kill several at a shot, that the usual price of a goose is a single charge of ammunition.

A Canada goose, which when fat weighs about nine pounds, is the daily ration for one of the Company's servants during the season, and is reckoned equivalent to three ducks, or eight pounds of buffalo or moose-meat. The geese in their migrations annually resort to certain passes and resting-places, some of which are frequented both in the spring and autumn, and others only in the spring. At those times flock after flock may be seen winging their way across the same neck of land, or through the same opening in the woods, each following the track of its predecessor. The Canada geese disperse in pairs throughout the country between the 50th and 57th parallels to breed, generally building their nests on the ground; although some few on the banks of the Saskatchiwine

occasionally seek the trees for that purpose, depositing their eggs in the deserted nests of ravens or fishing-eagles.

The snow-goose, or wavey of the Hudson's Bay residents, is considerably smaller than the preceding species, and as superior to it in beauty as it is in deliciousness of flavour, in which latter quality it may with propriety be said to vie with all the others. The barren grounds appear to be the favourite breeding-places of these birds, for they have been found along the shores of the Arctic Sea to their limits east and west, generally arriving at those stations in the early part of June, when the elevated spots only are bare of snow. The laughing-goose, which owes its trivial name to the resemblance of its call to the laugh of a man, is said even to advance still farther north, it having been found breeding on the islands of the Arctic Sea; although from the large flocks abounding in the woody districts skirting the M'Kenzie to the north of the 67th parallel, as observed by Captain Franklin's party, that part of the country is assuredly one of its favourite places of resort. This bird more closely re-

sembles the wild original of our domestic goose than the other species, differing from the *anser hyperboreus* more particularly as regards the plumage, and from the *anser Canadensis* in the comparative length of the neck and form of the bill. The Indians have not yet succeeded in imitating the call of the wavey, though by patting their mouth with the hand, at the same time that they repeat the syllable wah, they are able to decoy the laughing-goose

CHAPTER XVII.

Successful termination of the Transport of Baggage across the Great Slave Lake.—Uncertainty of conveying a Boat over unknown Ground.—Conjectures concerning a North-west Passage in a commercial point of view.—The Author loses his way by following the Track of a Lynx.—A lost Man uniformly travels in circles.—Extraordinary facility with which an Indian penetrates a Forest—By adopting the same mode the Author recovers his way.—Arrival of Birds.—A favourite American Dish.—Cinereous-Owl.—Virginian Horned Owl.—Its startling Cry.—Golden-shafted Woodpecker.—Discovery of several new Species of Insects.—Important Discoveries regarding the Barren-ground Rein-deer.

On the 20th of May the men returned, having experienced many unavoidable delays from open channels and decayed ice; but, with the exception of a sledge of dogs and three men who, by falling in the water, had received a thorough wetting, no other accident occurred, and I had the satisfaction of finding the baggage in a very good state of preservation. It was to me indeed a happy moment; for I was relieved

of an anxiety that had been weighing heavily upon my mind from the period when I first broke the seal of my instructions after Captain Back's departure up to that instant.

When it is considered that in the short space of six weeks a weight exceeding five thousand pounds had to be conveyed over ice and snow by a circuitous route of full seven hundred miles,—double the weight of baggage and more than treble the distance experienced in our trip from Fort Reliance to Musk-Ox Rapid,—it will be readily imagined that I had good reason to be apprehensive of the result. A sudden disruption of the ice, or even a rent of a few feet, would have effectually cut off my communication with Fort Resolution for a period so long as would have probably obliged me to winter in the country another season. As it was, the party could not reach the shore by nearly a mile, owing to a lane of open water in front of the establishment, rendering it necessary to despatch several small Indian canoes for their transport.

In estimating the successful termination of this undertaking, it must not be forgotten that

the surface for the whole distance was level to which circumstance may be attributed the comparative ease with which so small a party had effected the object; for notwithstanding with the assistance of the Indians, we might have mustered a force greater by tenfold, it was considered unequal to the transport of our light sea-boat over scarcely twenty miles of ground, owing to the inequalities to be contended with. From that circumstance I should be far from sanguine as to the favourable termination of an attempt to cross anything half so cumbrous as a boat over unknown ground, however trifling the distance,—upon the reflection that a range of mountains, or a fault in the land of any magnitude, would be an effectual barrier to the progress of the party conducting the enterprise. On the contrary, over a plain covered with snow, a frozen lake or sea, I cannot conceive any obstacle so great which may not be surmounted by steady perseverance.

Were it necessary to transport merchandise along the shores of the Polar Sea, even from Regent's Inlet to Icy Cape, to either of which

extremes it has been satisfactorily proved that vessels can annually approach, it might be effected towards the close of winter, as about that period for the space of two months the ice may be always found in a fit state to admit of runners passing over it, and at which time three dogs are equal to drag five hundred weight at thirty-five miles a day; two or three men only being sufficient to manage any number of laden runners not exceeding fifty.

I merely mention this with a view of demonstrating what might be done; for, notwithstanding a different opinion is almost universally entertained throughout the country, I am strongly impressed with the idea that a passage sooner or later will be discovered practicable for commercial purposes. Hudson's Straits are scarcely open three months out of the twelve, and on several occasions they have been so blocked up with ice as to impede their navigation altogether; yet a value in furs of between four and five hundred thousand pounds is, with very few exceptions, annually brought to England through those straits. It does not follow, because some half-dozen expeditions have

visited the different narrows of the Polar Sea and found them blocked up with ice, that they always remain so; for the navigation of those openings might have been impeded from accidental causes, in the same way as Hudson's Straits, of which we have proof in the voyages undertaken by Parry and Ross. The one officer, at the time of the wreck of the Fury in Regent's Inlet, found open water in every direction; while the other officer witnessed the same waters so blocked up with ice, that after having been frozen up for two winters, he was obliged to abandon his vessel, to save his own life and that of his party.

In one of my daily excursions I fell upon the foot-prints of the *felis Canadensis*, or Canada lynx, which, in verification of the name of *le loup cervier* given to it by the Canadians, was following the track of a solitary deer. Charlevoix and other authors state that the lynx drops from the trees on the moose and other deer, and fixing on the jugular vein, never quits its hold till the exhausted animal falls through loss of blood. It, however, only attacks the larger animals when rendered bold by hunger, and

very far from being so destructive to the larger quadrupeds as the early French writers on Canada supposed, it is represented by the Indians as being a timid animal, chiefly preying on the American hare, for the capture of which it is well adapted by nature. At the sight of a dog it runs up a tree, where it remains like a cat spitting and setting up its hair, until deprived of life by a blow on the back with a slender stick, which easily destroys it. Although not swift on land,—for its gait is by bounds,—it swims so well that it has been known to cross a piece of water two miles wide. From seven to nine thousand lynx-skins are annually procured by the Hudson's Bay Company; yet, from the solitary habits of the animal, it is seldom taken in any numbers at one place, and in all probability owes its value as an article of food to that cause.

I soon lost the track of the lynx, and with it, I feared, the chance of retracing my steps to the fort; for, in the eagerness of pursuit, I had neglected to note the usual marks for my return. In this perplexity, it was fortunate that I had elicited from the natives their mode of pene-

trating the vast forests of their birth, which till now has been a source of astonishment to every sojourner in North America. The most scientific observer, when involved in an extensive and unknown wood, at a time when the sun is obscured, although he should be in possession of every mathematical instrument he could wish, is totally unable to worm his way, and soon getting bewildered and fatigued, falls a sacrifice either to cold or starvation. With what uniformity a lost man travels in circles, in place of making a direct course, was exemplified in two gentlemen of the Hudson's Bay Company but a short time ago. While their men were occupied in making a portage, they strolled into the woods, and after a time commenced their return. The period having elapsed that ought to have ended their walk, the cause was at once evident; yet they continued on until, reaching a fallen tree rather more remarkable than the rest, one of the two expressed an opinion that he had passed it but a few moments before; but, from want of unanimity, no further notice was then taken of the circumstance. A third time they reached the

tree, yet not thoroughly convinced of the fact; so they engraved a mark, and a few moments more actually brought them to the very same spot again. Seating themselves on their old friend, they wisely fired off their guns; the report of which soon brought some of the party to their relief.

The Indian, however, is not exposed to such accidents; for he has learned by experience that that portion of every pine-tree which points to the northern horizon has fewer branches than that part which faces the opposite quarter, where, from exposure to the rays of the sun, germination is more productive. Under the terms of the rising and setting sun, the other principal points are known to the natives; and they have doubtless terms for many of the intermediate ones. Thus has nature planted innumerable and never-failing compasses to guide through a trackless and interminable forest

"Her sylvan tribes of children of the chase."

Moreover, the inclination of the trees to the south are further guides; and if a valley or any other spot should intervene where the sun has not exerted that influence, which is the case in

more exposed situations, they are directed by the position of the fallen trees. Judging from their appearance of the period when they were blown down, and tracing in their memory the direction whence the storm or hurricane then came, they are able to obtain tolerably correct bearings. To some persons this stretch of the mind may appear incredible; but to those who are acquainted with Indian character, it will not be a matter of the least astonishment.

It was by such means that I reached the fort, and relieved the minds of my friends from an anxiety which my prolonged absence had occasioned.

By the middle of May almost all the feathered tribes had arrived from the south, adding interest to the woods, either from the splendour of their plumage or the sweetness of their notes. That familiar and showy little bird, the *sylvicola æstiva*, or citron warbler, was to be seen in active motion during the whole day, seeking from bush to bush those caterpillars which harbour on willows; while the *fringilla leucophrys*, or white-crowned finch, and *merula*

migratoria, or red-breasted thrush, perched on the topmost branch of some lofty pine, poured forth their morning and evening melodies. The latter bird is also esteemed as an article of food in the United States, and sold abundantly in the markets under the title of robin; which sounds oddly to an Englishman, who has been accustomed to hold that name, when attached to a bird, in every way sacred.

When these wanderers had retired to rest, and the recesses of the woods became deeply shadowed by the decline of the sun, that imposing bird the *strix cinerea* or cinereous owl of Latham, its first describer, was to be seen in search of the American hare and various murine animals on which it preys. The Crees call it *atheeneetoo omeesew*, real or Indian owl, because it is the largest species that they are acquainted with; and they might add, because it is the largest known species of the genus *strix*. It is an inhabitant of all the woody districts of the fur-countries to the north of Lake Superior; and as it is common on the borders of Great Bear Lake, where it must of necessity pursue its prey during the summer months by day-

light, it does not appear that the glare of the sun is an inconvenience to this bird. Its usual length from the tip of the bill to the end of the tail is two feet, although individuals are frequently found differing in this respect: there are seldom, however, any variations of consequence in the colours or distributions of their markings. It flies low, yet seizes its prey with such force that it has been known to sink into the snow at least a foot deep, and then rising with the American hare alive in its talons, to fly away with perfect ease.

The *strix Virginiana*, or Virginian horned owl, which is also an inhabitant of the North American continent, not only preys upon the same food as the former species, but it adds the *sciurus Hudsonius*, or Hudson's Bay squirrel, to its list of dainties. This large night-bird is little inferior to the *strix cinerea* in size, but of much greater importance to the superstitious natives, who have such a dread of it, that they not only refrain from imitating its hooting, (for which with respect to most other birds they have a partiality,) but they are highly displeased at any one who does so In this particular

they are not singular; for its nocturnal cry bears so great a resemblance to the human voice uttered in a hollow sepulchral tone, that it has been frequently productive of alarm to the traveller both in the southern and northern parts of America.

"A party of Scottish Highlanders in the service of the Hudson's Bay Company," says Dr. Richardson in the Fauna Borealis, "happened, in a winter journey, to encamp after nightfall in a dense clump of trees, whose dark tops and lofty stems, the growth of centuries, gave a solemnity to the scene that strongly tended to excite the superstitious feelings of the Highlanders. The effect was heightened by the discovery of a tomb, which, with a natural taste often exhibited by the Indians, had been placed in this secluded spot. Our travellers having finished their supper, were trimming their fire preparatory to retiring to rest, when the slow and dismal notes of the horned owl fell on their ears with a startling nearness. None of them being acquainted with the sound, they at once concluded that so unearthly a voice must be the moaning of the spirit of the

departed, whose repose they supposed they had disturbed by inadvertently making a fire of some of the wood of which his tomb had been constructed. They passed a tedious night of fear, and with the first dawn of day hastily quitted the ill-omened spot."

The *picus auratus*, or golden-shafted woodpecker, must either visit the fur-countries at a very early period of the summer, or rear its young prior to arriving there; for on the 24th of May I discovered, perched on the summit of a dead tree, four young ones, receiving food from the bills of the parent birds. I am inclined to believe that the former is the case, as on the 2nd of May 1834 I secured a specimen at Fort Reliance, long before the snow had disappeared from the ground. At that time its crop was full of ants, collected from between the loose bark and stem of decayed pines and birches. When the season is sufficiently advanced for the reappearance of the ants, this woodpecker leaves the depths of the forests to seek the open downs, where it employs itself in turning over the ant-hillocks in search of the larvæ on which it chiefly preys.

Although this beautifully-marked bird can use its bill very efficiently in excavating a hole for its nest, it prefers building in the natural cavities of trees. On the plains of the Saskatchiwine, where it resorts in vast numbers, the male may be heard in the pairing season making a loud rapping on the branch of a tree with its bill, which has been considered by some writers to be a signal to its mate, it not having been observed at such times to be occupied in drilling holes. I am inclined to believe, however, that the noise is occasioned by its attempts to unbark the trees to obtain its food; although it may be caused by striking its beak against the trunks or larger branches, for the purpose of discovering any hollows wherein to form its nest, — a sagacity which has been attributed to it by a late compiler.

From the stomach of this bird I obtained a worm, and an insect of the hymenopterous order; and from its body a parasite. The former, in Mr. J. G. Children's opinion, to whom all my insects were forwarded, appears not unlike the *ascaris crenata* of Rudolphi; but at present it remains a matter of doubt

whether it is or is not an undescribed species. The individual of the order hymenoptera having been forwarded to Mr. Shuckard, a friend of Mr. Children, was referred by him to *formica herculeana* of Linnæus, and returned with the following observation:—"The identity of Captain Back's species with the *f. herculeana* of Linnæus is interesting, from its being the first proof I am acquainted with of the same species of hymenopterous insect inhabiting both the European and American continents. These ants are, indeed, smaller than the European species; but climate is well known to affect developments."—The parasite so much resembled a species described by Schranke, and referred by him to *pediculus auritus* of Scopoli, that Mr. Children has thought it right to adopt that name, but without asserting their identity.

Attached to the *tetrao saliceti*, or willow-grouse, I found a totally new species, named *nirmus affinis;* and infesting that singular bird the *recurvirostra Americana*, or American avoset, two more unknown parasites, now designated *nirmus testudinarius et nirmus bi-*

*seriatus.** A new species of *physostomum* was also detected; but to what bird it belongs is uncertain, from an omission on my part to make a note of it;—it has been named *p. marginatum* by Mr. Children: two other species, doubtfully referred to *docophorus platyrhynchus et physostomum sulphureum* of Nitzsch; in addition to three new species of the class arachnidæ, namely, *thomisus borealis, thomisus corona, et theridion Backii;* besides a spider doubtfully referred to *dysdera erythrina,* and a variety of the *tetragnatha extensa* of Walck;—making in all seven new species and five doubtful ones, of which it was my good fortune to be the discoverer. It is to Mr. Children, however, that naturalists must feel indebted; since it was from the suggestions of that gentleman that my attention was drawn to these tiny creatures, which, from being the companions and consequence of poverty and filth, have hitherto excited less attention than other more showy species. By a microscopic view, beauties both in form and structure are to be detected well de-

* In the Appendix to Captain Back's Narrative these insects are incorrectly stated to have been found on the curlew.

serving a place in the following admired address:

> "Rest, silver butterflies, your quivering wings;
> Alight, ye beetles, from your airy rings;
> Ye painted moths, your gold-eyed plumage furl,
> Bow your wide horns, your spiral trunks uncurl;
> Glitter, ye glowworms, on your mossy beds;
> Descend, ye spiders, on your lengthened threads;
> Slide here, ye horned snails, with varnish'd shells;
> Ye bee-nymphs, listen in your waxen cells."

The collections, in every branch of science, made during the progress of the expedition, are necessarily small, owing to the peculiar circumstances which attended it. Immediately on leaving La Chine, Captain Back delivered an order to the men prohibiting them to render the least assistance in those researches to which it was my particular province as naturalist to attend; assigning as his reason for taking so decided a step, that on Sir John Franklin's expeditions the men had frequently pleaded as an excuse for an omission of duty, their having been in search of a strange bird or insect, and his determination to place it beyond the power of his party to make any such evasions. The necessity of proceeding to the sea with but one boat rendered it expedient to reduce our bag-

gage as much as possible, and among the articles laid aside by Captain Back as unnecessary was an insect-box which I had prepared expressly for the sea-coast voyage. Two nets also of a small mesh, kindly provided by Mr. M'Leod for taking fish in the waters of the Great Fish River and Polar Sea, were never used; the fear of an accident happening to the boat from unnecessary exposure having been urged as the cause. I was the more sorry for the latter circumstance, because every packet from England contained a letter from that talented and distinguished traveller, Dr. Richardson, expressive of his anxious solicitude for specimens of fish to enrich the third part of his Fauna Borealis, which he delayed publishing on that very account. The duties which devolved upon me at Fort Reliance prevented my absence for more than two hours; and as my occupations commenced at six o'clock in the morning and seldom ended before the following day had begun, not a moment could be afforded from the short period of sleep—

"Young bloods look for a time of rest."

It was only those birds and insects that might

almost be said to have come to me, that were obtained during two long winters; and as for fish, it will already have been seen that only those in a dried state reached our fort. Of all the fresh fish that were obtained I prepared specimens, and Dr. Richardson has very kindly acknowledged my attentions in his new work on ichthyology. It was not until after the expedition had been consigned to my charge, that the collection, of which lists are given in the Appendix to Captain Back's Narrative, was commenced. The restless activity which that responsibility occasioned, together with the necessity of complying with Captain Back's directions in taking a boat-load of pemmican from Fort Resolution, rendered it utterly impracticable to effect anything important in the way of collections. To obtain a few gleanings, among other personal sacrifices, instead of using a sledge of dogs which Mr. M'Leod had kindly forwarded for my transport along the whole course of the Great Slave Lake, I loaded them with skeletons, and a fœtal barren-ground rein-deer, while I traversed the route on snow-shoes.

On landing in my native country, these trea-

sures, with others, were forwarded to the rooms of the Geographical Society in Regent-street; but what became of them afterwards, although innumerable inquiries were made, I have yet to learn. In the last letter which I received from the late Secretary, on whom the final arrangement of the affairs of the expedition devolved, he disclaimed all knowledge of them. Notwithstanding the fatigue and trouble I had been exposed to in bringing home these specimens, I should not have applied for them, but from an honest wish to record in these pages facts which must have established the *cervus tarandus, var. arctica,* not as a variety of the rein-deer, as it has been hitherto considered, but as a distinct species. It was not until the middle of the last winter that my attention was drawn towards the viscera of this beautiful and important* animal; and then, from the severity of the season, my examination was rendered very imperfect. I obtained a pregnant animal afterwards; but, instead of trusting to my own *ipse dixit,* I abstracted the liver and fœtus, which were preserved in a cask of salt, for the purpose

* It is almost the only food on which the Copper Indians subsist.

of obtaining the highest authority regarding the subject on my arrival in London. But as this has been denied me, all I think it prudent at present to state is, that the barren-ground rein-deer is peculiar, not only in the form of its liver, but in not possessing a receptacle for bile.

CHAPTER XVIII.

Completion of the Boat, and Departure from Fort Resolution.—Dangerous state of the Slave River. — Accident to the Boat.—Arrival at Fort Chipewyan. — Early Commencement of Spring. —A large assembly of Hooping Cranes. — Mr. M'Leod remains at Fort Chipewyan.—Departure from Fort Chipewyan, and Arrival at Portage la Loche.—The Boat conveyed over the Portage in safety. — Musquito Hawk. — The Journey resumed. — Determined Marauders of the Bird kind.—An Indian Guide engaged at Fort Isle à la Crosse.—Detention at the Rapid River Fort.—The Infant Colony on the Saskatchiwine River. — Trouble. — Fatal effects of the Influenza.—Arrival at the Grand Rapid.—An account of the Passenger Pigeon.

By the 10th of June the boat was completed; and, although in every way larger than the one built for the sea-coast voyage, it was not sufficiently capacious to stow the whole of the baggage, and twenty-five bags of pemmican necessary as provision. I was under the necessity therefore of taking forward two half-sized canoes as tenders to Fort Chipewyan; in one

of which Mr. M'Leod's family embarked, while that gentleman and myself took possession of the other. In this manner we departed from Fort Resolution.

It was mortifying to find that from this time no further addition, consistent with Captain Back's instructions, could be made to my collection; and to learn, that an accommodation might have taken place with regard to the pemmican mutually advantageous to the Company and the expedition, but which could not now be remedied. The Slave River was unusually high, and the current necessarily very much increased; this, added to the numberless drifted trees which encumbered the river, rendered the navigation both difficult and dangerous, and, notwithstanding all our precaution, on the second day we stove the boat. A piece of wood, apparently the point of a pine-stick, with its root adhering to the bed of the river, had penetrated one of the lowermost planks, and so completely anchored the boat that it had to be chiselled away; when we succeeded in reaching the shore, but not until our little vessel had half filled with water, which satu-

rated both the specimens and pemmican. This accident, and the frequent portages that had to be made owing to an overwhelming current occasioned by the flooded state of the river, prevented our reaching Fort Chipewyan before the afternoon of the 22nd of June.

It appeared from the information I received here, that the winter had been milder than usual, as well as at Fort Vermilion on the Peace River, and Fort Norman on the M'Kenzie; the atmospheric registers kept in those districts giving similar results to the observations taken at Fort Reliance, where the lowest descent of the thermometer was 58° minus; while in the previous year, it will be recollected, a greater cold by twelve degrees was experienced by us. Even less snow had fallen at either place than in the neighbourhood of our establishment. As might be expected, therefore, the spring set in early, and vegetation made rapid progress, affording agreeable employment to the women of the fort in collecting as a substitute for sugar the sap of the birch,—a syrup to which they are exceedingly partial. The earth was teeming again with the fragrant off-

spring of the season; and it required no great stretch of the imagination to fancy oneself surrounded by the charms of an European garden, or amid the mild beauties of a southern climate, —gifts of Nature little valued until they have been for a time withdrawn. The martins had reoccupied their nests, which were stationed in numbers under the eaves of the different buildings; and a cow and calf, hitherto unseen at Chipewyan, appeared grazing in the vicinity.

During my stay at Fort Chipewyan, I witnessed, in company with Mr. M'Leod, an unusually large assembly of hooping-cranes (*grus Americana*), which, from the collective utterance of their peculiar cry, very much strengthened in my opinion Pennant's supposition that they were the birds seen by Captain Philip Amidas,* on his landing on the Isle of Wokokou, off the coast of North Carolina; "when," says he, "such a flock of cranes (the most part white) arose under us, with such a cry, redoubled by many echoes, as if an armie of men had shouted all together." It migrates in flocks, per-

* The first Englishman who ever set foot on North America.

forming its journeys in the night, and at such an altitude that its passage is known only by the peculiar shrill screams which it utters; whence its specific name. As it flies low on first rising from the ground, it affords a fair mark to the sportsman; but, if not entirely disabled by the shot, fights with great determination, and can inflict very severe wounds with its formidable bill. Its flesh is well-tasted, but very inferior to that of the *grus Canadensis*, or brown crane, which resembles the swan (*cygnus buccinator*) in flavour. The wing-bones of both these birds are converted by the natives into a rude sort of flute.

Mr. M'Leod determined to await here the M'Kenzie River brigade: to take canoes any farther was out of the question; and notwithstanding the consumption of provision, the boat was still so lumbered as scarcely to afford room in the stern for one person. The carpenters, who had been actively employed in preparing wheels to form a carriage for conveying the boat over Portage la Loche, to which spot all my attention and anxiety were now directed,

having completed their work by the 27th, I took leave of my esteemed friend and embarked.

Taking the route of the Embarras, a small channel of the Athabasca,—by which a day at least was saved, owing to the current being less strong and the road rather more direct,—we arrived at the Portage la Loche on the 8th of July. The labour of carrying baggage across this formidable barrier has been already explained, but we had a task before us hitherto unequalled,—the conveyance of a cumbrous and weighty boat up a precipice towering above the level of the valley a thousand or more feet, consisting of a succession of eight hills almost perpendicular. Nevertheless I felt sanguine as to the result, every man being inured to hardship and fatigue—able and willing; and after twenty-four hours of incessant labour, I had the gratification of finding those expectations fully realised. The boat was then securely fixed to a carriage, and wheeled to the southern extremity of the portage.

The musquitoes were here in myriads, rendering this part of the voyage additionally irk-

some; and the only gratification we experienced was to witness the havock made amongst them by the *caprimulgus Americanus*, on which account it has received the first portion of its name of musquito-hawk, the latter being more particularly affixed from the resemblance in its flight to some of the smaller falcons. It has also obtained the ridiculous name of goat-sucker, along with others of the same genus, from the very absurd idea that it sucked the teats of goats. Few birds are better known in the fur-countries than this, which ranges in summer even to the remotest arctic lands. At the period of incubation the male may be seen every evening keeping a most vigilant watch, by alternately mounting and lowering itself in the air, uttering at the same time a sharp sound resembling the dissyllable pēēsqŭăw, which is its Cree name. On the approach of an enemy, the male, by a singular habit peculiar to him, suddenly precipitates himself head foremost, and with great rapidity, down sixty or more feet directly upon the intruder, passing within a foot or two of his head; then rising again and wheeling round to repeat the same

manœuvre until the danger is averted. At every descent a most extraordinary noise is heard; resembling, according to some, the sound produced by blowing into the bung-hole of an empty hogshead; and according to others, that which is effected by the vibration of a tense, thick cord in a violent gust of wind: the latter will perhaps convey some slight idea of the sound. There are two other species of the same family in America, whose trivial names are an attempt to imitate their call, — chŭck-wĭll's-wĭdow and whĭp-pŏŏr-wĭll; the former being found in the more southern districts, and the other principally in the northern parts of the New World.

The injuries which the boat had received on the portage having been repaired, we resumed the journey on the 14th of July. The *oriolus phœniceus*, (golden oriole, or maize-bird,) was now very abundant, but not in such vast flocks as are sometimes seen to the southward, where they are said to obscure the sky with their multitudes. These birds are called red-winged starlings by the North Americans; and by the Mexicans, comendadores, from a resemblance

in the golden patch on their wings to a badge worn by the commanders of a certain Spanish order. The golden oriole reaches the Saskatchiwine in May, when it feeds on grubs; but as soon as the grain sown in the vicinity of the trading posts begins to germinate, it tears up and devours the sprouting plants. The orioles are one of the pests of the colonies, making most dreadful havoc among the maize and other grain, both when newly sown and when ripe. As neither the report of the gun nor the slaughter which it occasions among the flock will drive them away, the farmers sometimes attempt their destruction by steeping the maize in a decoction of white hellebore before they plant it. The birds almost immediately after eating the prepared corn are seized with a vertigo and fall down, which sometimes has the desired effect. This potion is particularly aimed against another pest, the *quiscalus versicolor*, or purple grakle, which consorts in myriads with the maize-birds in rendering fruitless the labours of the husbandman. A reward of threepence a dozen was once awarded in New England for the extirpation of the jackdaws, as the

purple grakles are there termed; and the intent was almost effected to the cost of the inhabitants, who at length discovered that Providence had not formed even these seemingly destructive birds in vain. Notwithstanding they caused such havoc among the grain, they made ample recompence by clearing the ground of the noxious worms, particularly the caterpillar of the *bruchus pisi*, or pease-beetle, with with which it abounds. As soon as the birds were destroyed, the worms had full leave to multiply, which was the cause of the total loss of the grass in 1749, when the colonists had to get their hay from Pennsylvania, and even from Great Britain. It is this bird which is so singular in building its nest among the loose sticks forming the base of the osprey's nest (*falco haliætus*), apparently neither dreading, nor inconvenienced by, the bird of prey, which rears its young above them.

At Isle à la Crosse, where we arrived on the 19th of July, the Indian Tegasterkemo, under whose directions I had travelled in passing into the country, was again engaged as guide; for the route between this spot and Cumber-

land House is so intricate, that even those men who have traversed it several times are incapable of worming their way. At the Rapid River Fort I was detained three days for the purpose of administering relief to a band of Indians congregated there, labouring under influenza; and at Cumberland House, from the same cause, I met with a further detention. The inhabitants of the little colony on the banks of the Saskatchiwine River were also affected with a mild form of the disease; which, however, was not the only source of trouble to them: they had been threatened by the agents of the Hudson's Bay Company, with an order for their immediate removal, supposing the traffic they carried on with the Indians injurious to the trade at Cumberland House. I am, however, unwilling to believe the report; or if such an act of injustice should be put in practice, I do hope it will not be countenanced by the leading members of that company.

At the Grand Rapid we met the Athabasca brigade; and to such a deplorable condition had the influenza reduced the several crews,

that for eighteen days they were unable to proceed on their journey. The accounts they brought from Norway House were even more distressing, several having died from the disease; and according to letters from Oxford House and York Factory, it had been even more fatally severe, thirteen having died at the former post, and as many as seventeen at the latter.

Along the whole course of the Missinnipi and Saskatchiwine rivers we met with small flocks of the *columba migratoria*, or passenger-pigeon, and here they were extremely numerous. A few hordes of Indians, frequenting the low-flooded tracks of land at the southern extremity of the lake, subsist principally on these pigeons during certain periods of the summer when the sturgeon-fishery is unproductive and the wild rice (*zizania aquatica*) has not yet ripened; but farther north these birds are too few in number to furnish a material article of diet. The passenger-pigeon attains the 62nd degree of latitude in the warmer central districts, but reaches the 58th parallel on the coast of Hudson's Bay in very fine

summers only, arriving about the latter end of May and departing in October.

The passenger-pigeon often appears in such vast numbers as can scarcely be credited. Wilson, the celebrated ornithologist, estimates a flock, which continued to fly over his head in an equal stream for the greater part of a day, to have been a mile in breadth, and two hundred and forty miles in length; comprehending, at three pigeons to a square yard, upwards of two thousand two hundred and thirty millions. He further informs us, that they repair every morning to certain places in the western forests in such countless multitudes, that their dung covers the ground to the depth of several inches; all the grass and underwood being destroyed, and the trees themselves killed over thousands of acres as completely as if girdled by an axe, this devastation not being repaired until a lapse of many years.

These spots are termed pigeon-roosts, and are probably fifty or sixty miles distant from the breeding-places, which are no less remarkable and still more extensive. One which Mr. Wilson visited in Kentucky was forty miles

long and several miles wide; every tree loaded with nests, and the ground strewed with broken branches, eggs, and squab pigeons, which had fallen from above, and on which large herds of hogs were fattening. From twenty feet upwards to the tops of the trees, there was a perpetual tumult and fluttering of crowds of pigeons, their wings roaring like thunder; while the birds of prey were sailing overhead in great numbers, and seizing the squabs at pleasure. There were often above a hundred nests on a single tree, each containing one young bird only; and the frequent fall of large branches broken down by the multitudes which clung to them destroyed numbers of the birds, and rendered it dangerous for any one to walk beneath. It is not until after the passenger-pigeons have reared a brood at these breeding-places that they visit the fur-countries, where they again build and rear nestlings.

CHAPTER XIX.

A Storm encountered on Lake Winnipic.—The Author loses a pet Fox, but obtains two new treasures.—The Storm moderates.—The term "Winnipic" explained.—Death of Paul, an Iroquois Guide.—Arrival at Norway House.—Account of a new species of Marmot, now in the Zoological Gardens, Regent's Park.—Departure from Norway House.—Ill-constructed Dam across the Echemarmis raised by the Hudson's Bay Company.—An account of the Beaver, with further information regarding its manners and habits.—Painted Stone.—Holey Lake.—Hill and Steel Rivers.—Arrival at York Factory.—Hudson's Bay Ship at anchor in the Bay.—Occupations at York Factory.—Embarkation on board the Prince Rupert.—Arrival in England.

In traversing a bay of Lake Winnipic, we encountered a storm which by raising a fearful sea placed us in imminent danger; and as all our endeavours to reach a sandy cove for shelter proved unavailing, we were obliged to run to a lee-shore for protection against the impending danger. As we approached the land, the waves broke over the stern and

swamped the boat; but fortunately there was no great depth of water, which enabled us after much labour to recover our little vessel and cargo. The boxes containing the specimens of natural history had been rendered tolerably water-tight by calking between the divisions with oakum; but nevertheless I thought it right to inspect them, which it rejoiced me to find was an unnecessary undertaking. My only loss was a pet silver fox (*canis fulvus, var. argentatus*), which in the bustle made its escape; and all my endeavours to recover it were fruitless. I had only purchased it of the Indians a few days before, and although very tractable, it had not shown that familiarity towards me which had been the case with its former master, by following him about like a dog.

The black or silver fox is the most rare animal in the fur-countries, a greater number than four or five being seldom taken in a season at any one post, although the hunters no sooner find out the haunt of one than they use every art to catch it, because its skin fetches twice the price of any other fur-bearing animal in North America. It is more for their colour that the

cross, silver, and black foxes are prized, than for the fineness of their fur, which in the red or tawny variety is not in the least degree inferior: and this fact goes far to confirm the Indian accounts that the *vulpes fulvus*, or American red fox, occasionally produces at one birth all these varieties. Black individuals are more frequently found inhabiting the wooded districts about the Mackenzie River than any other parts of North America, where they hunt mice, lemmings, and small birds for food. La Hontan speaks of a black fox skin being in his time worth its weight in gold, and Pennant gives an account of one having been sold in Siberia for four hundred rubles; and even in England of late years they have brought a price varying between twenty and thirty guineas. Two specimens partaking both of the cross and silver varieties in the character of their fur, brought home by my friend Mr. Stuart, are now in the Zoological Gardens, beautifully clothed in their winter garb.

In searching after my little pet, I obtained two treasures, which in some measure compensated for my loss. The first was a *frin-*

gilla Ludoviciana, or rose-breasted grossbeak, equally beautiful and rare; for its favourite abode being in large forests, where it affects the densest and most gloomy retreats, it seldom meets the eye of man. This bird, which is of a species intermediate between the typical grossbeaks and bullfinches, has furnished Pennant with sufficient materials to form four species,—namely, the red-breasted grossbeak, red-breasted finch, dusky grossbeak, and spotted grossbeak; which very many subsequent writers have faithfully copied.

The variety of plumage assumed by the male according to its age has undoubtedly given rise to some of these inaccuracies; but how such an oversight could have been committed by a systematic writer, as to call the same bird by the term grossbeak in one page, and finch in another, cannot be so readily explained. The similarity of the young male to the female—and in extreme youth it is even paler—may have given rise to Pennant's specific appellation of dusky; and when a little farther advanced in age, the beautiful rose colour which begins then to make its appearance, principally in small

dots on the throat, has very probably given rise to the term spotted. Of the charming adult male a most accurate figure and faithful description have been given by Wilson; and the Prince of Musignano has been equally happy with regard to the female.

The first specimen of the rose-breasted grossbeak which reached Europe was obtained from Louisiana, its then assumed habitat; but subsequent observations rendered this doubtful, and led Wilson to believe that it was altogether an arctic bird, averse to the warmer climate of the southern states, and hardly ever appearing even in the more temperate ones. Recently, however, it has been discovered in Mexico; and in July 1833 I saw one among some pines growing on the banks of Sturgeon River, to the north of Cumberland House: from which facts we may safely conclude that this bird migrates extensively according to the season, probably visiting in the summer the rich valleys of the Rocky Mountains, hitherto untrodden by civilised man, and, after breeding there, retiring on the approach of winter to a more congenial climate. It is said to sing during the solemn

stillness of night, uttering a clear and harmonious note; in which peculiarity, if it be correct, it is like the *fringilla vespertina*, or evening grossbeak.

Vespertina, however, is even more rare than the species just described, for there are few collectors who can boast of having so inestimable a treasure in their possession. A specimen obtained at the Sault de Sainte Marie in 1823, from a flock which then visited that spot, but have not since appeared there, was presented by Mr. Schoolcraft to the Lyceum of New York, from which the species was established. Two others were subsequently shot in the neighbourhood of the Rocky Mountains, and preserved among the endless treasures of Mr. Leadbeater, from which the Prince of Musignano has given a beautifully-coloured plate in the second volume of his work. The evening grossbeaks retire during the day to those lands which are covered with a thick growth of various trees of the coniferous order, and only leave them in small parties at the approach of night; when the mournful sound of their strange and peculiar cry strikes the traveller's ear, but the birds

themselves are seldom seen. This bird has not been honoured by a number of synonymes like *Ludoviciana,* and from a very evident cause —that there is scarcely any difference in the plumage of the sexes; the female perhaps being a little less in size and rather less brilliant.

The second treasure I did not obtain without much difficulty,—very different from what wasexperienced with regard to the rose-breasted grossbeak, which hopped from bough to bough so tamely and fearlessly, that my principal care was to withdraw from its society as far as possible that I might not greatly injure the specimen by planting into it too many shot pellets: a little further acquaintance with man will soon teach it better policy. The object of my search was the individual termed *charadrius melodus,* or piping plover, which led me a nervous dance twice round the sandy shores of a rather deep bay before I succeeded in approaching within gun-shot; but I was amply repaid by the possession of a creature that required all the talent and research of a Bonaparte to raise it from that obscurity in which it had been pre-

viously involved by Temminck and others. The Prince of Musignano has clearly pointed out the specific difference of this pretty plover from either *charadrius semipalmatus* or *hiaticula*, to both of which species it has been referred by existing authors, and has thus rescued from unjust censure the ever-to-be-lamented Wilson. That celebrated ornithologist figured this bird in his splendid work, but omitted to impose a name on his new species,—a void afterwards filled up by Mr. Ord calling it *charadrius melodus*, but doubted by others, who affirmed that it bore an exact resemblance to the *charadrius hiaticula*, or common ringed plover of Europe, which, very unfortunately for these censurers of Wilson, is not even found on the American continent. About the same time that Lucien Bonaparte was endeavouring to fix the species, Dr. Wagler was similarly employed, and named it *charadrius Okenii;* so that it now pipes to two names. As Richardson, Swainson, and Kirby's work was published antecedently to the appearrance of the fourth volume of Bonaparte's American Ornithology, which contains these remarks, there is no account of this bird in the

Fauna Borealis; but Richardson has scientifically described the specimen I shot here in the Appendix to Captain Back's Narrative.

With the decline of the sun the storm abated, sufficiently moderating at midnight to admit of our resuming the journey; and after a cheerless sail of seven hours, we put ashore for refreshment on the very same spot where I had been detained in July 1833 by a somewhat similar raging of the elements.

The appellation of "Winnipic," or "muddy water," has been given to this lake, owing to the suspension of a large quantity of white clay; but to which the natives, in their more playful moments, ascribe another cause. A deity of considerable power and mischievous habits, whilst occupied in some attempt or other to the annoyance of the Indians, was taken captive by an elderly woman, and so besmeared with every kind of filth, in which punishment all the females of the tribe lent their assistance, that it required all the waters of the great lake to purify him. By way of retaliation, the deity, a sort of Robin Puck, has ever since employed himself in keeping up the discoloration occa-

sioned by that event; thus obscuring the sunken rocks and rendering the navigation to all intruders upon its waters extremely dangerous.

While crossing Play Green Lake I met a party of *voyageurs* in three canoes bound for Montreal, from whom I learned the death of the Iroquois Paul, a faithful servant to the Hudson's Bay Company for many years, and the guide to the expedition from La Chine to Norway House on its passage into the country. Returning from the house of a friend, where he had been drinking freely with others of his tribe, the poor fellow fell into a deep brook; and although he managed to gain the bank, he had only strength enough left to crawl under a fallen tree, where he was found wet and dead.

After an exchange of salutations with Mr. Simon M'Gillivray of the Company's service, who was destined for England like myself, although by another and more pleasant route, we entered Jack River, and at noon of the 11th of August reached Norway House.

My esteemed friend Mr. Charles Ross welcomed me here with the presentation of a very

rare and interesting animal, regretting at the same time that another of the same kind had made its escape on Portage la Loche. While bewailing this loss in the family tent of Mr. Dease, the gentleman who accompanied Sir John Franklin in his second expedition, his daughter, a very interesting metif child, retired for a moment, and returning with a little pet of the same species in her arms, at once put an end to my lamentations by the gift of an animal which until then I was perfectly ignorant she possessed. This was not only important as increasing my chance of conveying a live specimen to England, but as tending to throw some light upon the sex of these creatures, previously involved in much obscurity, and it is still a matter of doubt which of the two is the lord and master. These animals were subsequently presented to the Zoological Society, with an intimation that they were probably new to naturalists; and from no label being attached to them for some considerable time after they were received in the gardens, I concluded that some account would sooner or later be published in the Transactions of the society.

On visiting my little companions, however, the other day, I found them christened *arctomys empetra*, or Quebec marmot,—a distinction to which they were by no means entitled; and having mentioned the circumstance to Mr. Sabine, he at once removed the label, very kindly leaving it for me to determine the species.

The little strangers have some resemblance in the character of their fur to Pennant's description of a marmot preserved in the Leverean Museum, which in the second volume of his "History of Quadrupeds" is specified by the term "hoary;" but to suppose them to be identical with that species would be an unjust censure upon that author. Pennant's description is:—"Tip of the nose black: ears short and oval: cheeks whitish: crown dusky and tawny: hair unusually rude and long; that on the back, sides, and belly, cinereous at the root, black in the middle, whitish at the tip—so that the animal has a hoary appearance: legs black: claws dusky; four before, five behind: tail black, mixed with rust colour." Gmelin, in his systematic work, has quoted

Pennant's description thus: "Arctomys pruinosa capite auriculato; rostro pedibusque nigris; dorsi, laterum, et abdominis pilis duris, longis, basi cinereis, medio nigris, apice albidis." Mr. Sabine, in a paper on the North American marmots, read before the Linnean Society in January 1822, states, in allusion to *pruinosa*, that "our knowledge of this species is derived solely from the description of Pennant, which he made from a specimen in the Leverean Museum, and of which no figure was taken. The specimen was supposed to have come from North America. I have in vain endeavoured to trace the specimen: it was probably sold when the Leverean Museum was dispersed by sale, but I have not been able to ascertain by whom it was purchased."

In the Zoological Journal for 1828, Dr. Richardson, among other arctic animals, made mention of this marmot in the following words: "Hoary marmot, with long coarse fur, particularly on the chest, where it is hoary; hind parts dull yellowish brown; tail blackish brown, bushy. Dimensions: length of head and body twenty-seven and a half inches; of head

two and a half, of tail eight and a half inches." In the Fauna Borealis, published in 1831, Pennant's original description is quoted, with an additional account of an animal killed on the south branch of the M'Kenzie River by Mr. M'Pherson, and given in that gentleman's own words. "It was twenty-seven and a half inches long," says Mr. M'Pherson, "of which the head was two and a quarter, and the tail eight and a half inches. It is, I think, of the same genus with the Quebec marmot. In fore teeth, and shape of the head and body, it resembles a beaver. The hair, especially about the neck and shoulders, is rough and strong. The breast and shoulders, down to the middle of the body, is of a silver grey colour; the rest of the body and brush are of a dirty yellowish or brown. The head and legs are small and short in proportion to the body." The animals in the Zoological Gardens are, however, decidely distinct, not only from this, but from every other described species of the genus *arctomys*, and I have therefore named them *arctomys Okanaganus*, or Okanagan marmot, the propriety of which will be evident in comparing the descriptions.

ARCTOMYS OCHROGASTER. OCHRE-BELLIED MARMOT.

Okanagan marmot, with the head somewhat oval and flattened; nose short, obtuse, and covered with very minute hairs; incisor teeth slightly curved, upper ones anteriorally of a pale yellow, lower ones whitish; whiskers few, black, and of various lengths, but none exceeding two inches; ears semioval, shorter than the fur on the neck, but, from the arrangement of the hair covering the cheeks, perfectly distinct and thickly covered on both sides with short appressed hairs; extremities short and strong; fore feet shaped for grasping, having four toes well divided, and armed with strong claws, which are compressed, curved, and rather sharply pointed, well adapted for digging. Third toe is the longest, then the second, next the inner one, and lastly the outer one; in place of a thumb, there appears a rounded projection of the palm, having a small but well-defined claw; palm black and bare; five hind toes, of which the middle is the longest, the one on the right next, and afterwards that on the left, then the outer one, and lastly the inner one; claws resembling those of the fore feet; sole bare and black.

Fur around the nose and margins of the mouth grey; crown inclined to black, with a few long and irregularly-scattered grey hairs; tip of the nose brown; from either side of the dorsal aspect of the head a blackish band extends in an arched form down to the fore shoulders, somewhat resembling a ram with his horns laid back, and a slight bar of the same colour is spread for about an inch along the hind part of the neck; cheeks reddish brown, of a rather darker hue just beneath the eye; shoulders and fore part of the back covered with long coarse hair, grey at the surface, and bluish grey at the roots; fur of the hind parts shorter by at least one half, bluish grey at the roots, light grey in the middle, tipped with pale rusty brown, and frequently pointed with glossy black; fore legs and feet well covered with short but dense hair, black, excepting just beyond the insertion of each claw, where a very conspicuous irregular spot of grey is seen; hind legs and feet perfectly black; claws rather lighter; neck, chest, and whole ventral aspect of the body sparingly covered with a short fur of a buff colour, rather lighter towards the

sides; tail depressed, slightly convex on the upper surface, but quite flat beneath, narrowest at the root, gradually but slightly widening towards the end, where it appears rounded; colour above the same as the hind parts of the back, except at the tip, where it is dull black; beneath entirely dull black. Total length from the nose to the tip of the tail twenty-six inches, of which the head is three inches and three quarters, and the tail eight inches; palm, including middle fore toe and claw, two inches and a half, while the sole similarly measured is three inches and a quarter; height of ears posteriorly three quarters of an inch, and breadth between the eyes two inches.

The Okanagan marmot therefore is separated from Pennant's hoary marmot in not having a black nose, in the fur not being universally rude and long, and in not having on the back, sides, and belly any such arrangement of colour as cinereous at the root, black in the middle, and whitish at the tip. Richardson's description in the Zoological Journal, which savours of both Pennant's and M'Pherson's remarks, is too slight to afford anything like a satisfactory

comparison; but there are sufficient discrepancies,—such as the long coarse fur on the chest,—twenty-seven and a half inches being given as the length of the head and body, and two and a half for that of the head,—to show that it is not synonymous with the Okanagan. Were it not for the difference in the size of the head, which is very great, the dimensions of M'Pherson's animal would correspond pretty accurately with those of the Okanagan marmot, for the slight variation of an inch from the tip of the nose to the end of the tail might be reconciled by supposing that the arched form of the back had been flattened by pressure. It is very far, however, from resembling the beaver in the shape of its body, as in M'Pherson's specimen, being if anything rather broader across the shoulders than about the hind parts.

The length of head; the grey spot on the upper part of each of the fore toes, which strongly contrast with the black fur of the rest of the foot—the singularly-arched band extending from the back of the head to either shoulder, and the peculiarly short and scanty fur covering the front of the neck and whole ventral

aspect of the body—likewise the dull black of the under part of the tail, distinguish the Okanagan marmot as a new species.

In a small tract of country, on the borders of the Rocky Mountains, lying between the Columbia and Fraser's Rivers, these animals are found in abundance, supplying with food and clothing the Okanagan Indians, whose territory is bounded to the north by the Seechwhap Lake,* and to the south by the Spokane River, so named after the natives in whose country they are situated. In this corner of the world, the Indians who have afforded me a name for my marmots, live, as in the days of yore, in a state of purity and simplicity:

The free-born forest found and kept them free.

They are less under the power of the trader than any of the other tribes in North America, for their existence does not hang upon the supplies of ammunition and clothing they might receive from the fur-posts, as is the case with those who have laid aside the bow and arrow, and the use of snares, for that of the gun. In-

* It is written Schewhap on the charts, which does not convey the proper sound.

stead of the men being adorned in blue frock-coats, coloured neckcloths, and red stockings, trimmed with beads and gaudy ribands, and the women in shawls, printed calicoes, and other things very unsuitable to their mode of life,—for these showy articles are soon reduced to a very filthy condition from the native habit of greasing their face and hair,—the Okanagans live contented and happy, in a simple dress formed of the skins of their own marmot. That they have remained up to this period in a state of purity is attributable to necessity, for their lands do not afford any animals of value to the fur-company; rendering them therefore unable to purchase guns, or other iron instruments. From this cause they are considered by the traders as a very poor people, but in my opinion they are the richest of the rich; and if the other tribes in North America had possessed a country equally devoid of fur-bearing animals, they would not have been the declining people they now are.

The Okanagan marmots are taken with the bow and arrow, but more generally by snares set at the mouth of their holes; and are con-

sidered as delicious eating. They burrow obliquely, and extremely deep; live in villages like the prairie-dogs, and are very sociable. During the middle and sunny parts of the day they sport about the entrance of their holes, seldom going far from them, and on the sight of man retiring with a slow pace to their retreats again; when, sitting in an erect position, they give a shrill whistle to warn the rest of the community of the impending danger, and, after listening at the approach of their dwelling for a short time, seek protection in perfect security at the very bottom of their abode. They are difficult to tame, but, when attached, become playful and are fond of being handled, having all the amusement of the monkey without any of its unsightliness; neglect or long absence, however, soon renders them again wild and unmanageable. When confined and placed with others caught in distant parts, they grow instantly familiar, although strangers until that time; and besides manifesting this social disposition, and general love of their own species, they appear susceptible of individual attachment to the human race; an amiability of dis-

position very agreeable for others, but often becoming a serious disadvantage to its possessor, who has the credit of more sensibility than energy, more confidence than penetration, more simplicity than prudence, and hence stigmatised as stupid.

They feed upon roots, young shoots, and the leaves of trees, and become very fat just before they retire for their winter's sleep, which generally lasts from October to May; for nature has allotted to these animals, in a wild state, a long sleep and cessation from food, the result of plenitude previous to its commencement. Even when kept in a warm room during the winter season, they are half torpid, eat but seldom, and then with a seeming disgust. In a state of confinement they will feed upon cabbages, lettuces, apples, and many other fruits, show much partiality for bread and sugar, and drink milk greedily. The latter, however, is apparently considered by them as a luxury, for, if water be supplied them, they partake of it but sparingly, seemingly never affected with thirst.

The larger of the two animals, supposed to be the female, was observed by Mr. Charles Ross one autumn actively engaged in cutting hay, soon after which it disappeared. In the spring, however, it betrayed its retreat, situated beneath the flooring of the rooms, by thrusting its head through a division of the boards and startling the inmates with its whistle. It retreated almost immediately for another fortnight, when it reappeared for good, but had lost much of its gentleness of manner. In this case the hay was obtained solely for the purpose of forming its nest, and Mr. Ross is of opinion that it had not partaken of the least food during the period of its absence. Like the bear, it was equally fat as at the commencement of its hibernation, but soon became very lean. It would frequently growl and even bite at strangers, but it never attempted to injure Mr. Ross's children; and, although allowed to roam at large, it made no attempt to escape. It showed a great deal of instinct, was very inquisitive in prying into every thing it came near, answered to its name, and dis-

played an anxiety to possess a favourite food by standing like a dog in a begging attitude, and whistling until it obtained it.

As it never appeared happy but in a situation where it could burrow, it was secured, for the greater part of the time that it was in my possession, by a narrow band of moose leather, to a small stake driven into the ground. From this native fetter it sometimes made its escape; but always betrayed its situation by raising itself on its hind legs like a bear, and uttering its usual cry. At the sight of a dog it exhibited symptoms of alarm, by instantly commencing to burrow with its fore feet, turning round from time to time to intimidate its pursuer with a view of its formidable teeth, and, if irritated, by alternately separating and closing its lower incisor teeth. In feeding they sometimes use both their fore feet, and then sit erect; but they more generally use only one, and in that case the other is not raised from the ground, but put very much on the stretch.

As they uniformly made a separate habitation for themselves while in my possession, it is probable that in a wild state each has its own

burrow, and that they only congregate at feeding times. The position they adopt when sleeping, and the wisdom displayed in the arrangement of their fur, render it unnecessary that they should huddle together, as rats, mice, and others, to increase their temperature. Resting on their hind parts, they coil themselves into a perfect ball, by bringing the nose even with the tail, and snugly stowing away their four feet in the centre. The back, therefore, is uppermost and exposed; but, to guard against this, Providence has supplied the animal with a long fur of a light colour, capable of protecting from cold not only the fleshy parts at its roots, but the whole ventral aspect of the body and soles of the feet, which, but for this beautiful arrangement, are too thinly clad to withstand the frosty regions of the north. They invariably coil themselves towards that spot where they apprehend danger or annoyance; and, if disturbed, reconnoitre the intruder with half-closed eyes, by raising their head from beneath their tail, which acts the part of a muff. These muffs have of late become very bare, not however from the moth,—that detested insect by

the ladies,—but from a habit the feeder indulges in of drawing them from their cage by that member. In their present abode they can afford but little amusement to those who visit the gardens; while, if a small area were allotted them, they would prove an acquisition; and when they had once formed their burrow, which would scarcely employ them five minutes, no inducement would lead them far astray.

With my companions in my arms,—for there was then no occasion to hand them by the tail on changing their position, as is now the case,—I left Norway House on the 15th of August. Pursuing a north-easterly course, we reached a shallow piece of water, overgrown with bulrushes, and hence termed Hairy Lake, whose source of supply is the Echemarmis, a stream nourished by a morass, and so exceedingly narrow, that the willows growing on either bank meet near their tops. Scarcely sufficient room is therefore afforded to the *voyageurs* for plying their oars; but a greater impediment arises from want of water, there never being too much, and frequently in the more dry seasons so little, that, instead of a

stream, a foot or two of thin mud only is exposed to view. Formerly, that very interesting animal, the beaver, kept back the waters by a dam, through which from time to time an opening was made by the *voyageurs* sufficiently large to admit the boats or canoes to pass; the breach, in the course of the night, being invariably repaired by the industrious creature. This animal, however, owing to the value of its fur, is not now to be found here; and instead of the beaver-dam through which Sir John Franklin passed in his first expedition, an artificial one has been constructed by the trading company; but so inefficient in retaining the waters, and so inferior to the admirable works of this civil engineer among quadrupeds, as the beaver has been termed by a celebrated naturalist, that a portage has now to be made for nearly the whole course of this marshy stream.

There have been more extravagant statements with regard to the beaver than perhaps of any other animal in existence; and it is partly to show the absurdity of these fabrications, for

> "By setting things in their right point of view
> Knowledge at least is gained,"

and partly to relate some new matter regarding the habits of these very interesting creatures, that I have introduced here the following remarks.

There are some travellers who have assigned the beaver an elegant suite of apartments in its house, and two doors communicating respectively with the land and water; and others who have affirmed that, in raising the dwelling, stakes are driven into the ground in rows, which are secured by matting them with twigs. The former construction, as relates to the doors or openings, is a libel upon the animal, as it would render his house neither useful to guard him against the extreme cold in winter, nor as a protection from his bipedal and quadrupedal enemies; for both the otter and wolverine have the credit of being his destroyer, especially the latter animal, on which account it is called the beaver-eater. So far from driving stakes into the ground, the beaver places most of the wood crosswise, almost horizontally, and without any other order than that of leaving a hollow or cavity in the middle sufficiently capacious for his purpose. Should any unnecessary branches

project inward, they cut them off with their teeth, and throw them in among the rest, to prevent the mud from falling through the roof.

Neither is there such order observed as completing the wood-work before the plastering is commenced, which has been stated; for their houses and dams present, from the very foundation upward, only a rude mass of mud, wood, and stones. Part of these materials are procured from the bank, and part from the bottom of the creek or pond; but always as nearly as possible to the house. The wood they unquestionably drag with their teeth; but with regard to the mud and stones, a considerable doubt exists as to whether they carry it in their mouths, or, by scooping it up with their fore paws, and resting it under their chin, convey it after that fashion. From the contradictory accounts of the Indians with regard to this subject, I am inclined to believe that they at times do both, more generally perhaps adopting the former mode.

Relative to the suite of apartments, there cannot be a doubt but that almost every beaver-

house has many minor partitions; but that they are intended, as Mr. Graham has informed Pennant, one to lodge in, another to eat in, and a third for other necessaries, is perfectly absurd. The sagacious beaver has formed these walls for no other purpose than to support the roof of his dwelling, which is evident from their appearing generally closed; the only opening leads into the principal apartment from that side communicating with the water. Hearne, who must have been present at the taking of hundreds of beavers, states, "I have seen a large beaver-house built on a small island, that had near a dozen apartments under one roof; and, two or three of them only excepted, none of them had any communication with each other but by water. As there were beavers enough to inhabit each apartment, it is more than probable that each family knew their own, and always entered at their own doors, without any further connexion with their neighbours than a friendly intercourse; so that, in fact, they may be called double or treble houses, rather than different apartments of the same house." They never aim at any other convenience in their

buildings than to have one apartment sufficiently large to hold them, and so placed as to afford a dry place to lie on; but how that is situated, as far as I have investigated the circumstance, seems altogether to have escaped the observation of Hearne and almost every other writer on the manners and habits of this very interesting animal.

I have been informed by the Indians and traders that the floor of a beaver-house uniformly presents an inclined plane towards the water, and thus prevents the possibility of the dwelling becoming inundated by a sudden rising of the stream, which would be the case if it were constructed after any other form. It appears, however, not merely intended to guard against such accidents that the beaver has thus arranged its habitation, but that it may enjoy at one and the same time both the land and the water, by resting its body on the floor of its house, while its tail hangs suspended in the latter element; and, from the inclination given to its parlour, it can alter its position as the stream rises or falls, with the least possible inconvenience, for the purpose of effecting this

singular habit. For an account of this feature in the animal I have searched in vain; which I am the more surprised at, since every trader and Indian with whom I conversed concerning the beaver,—the staple commodity of the former, and the standard of value in trafficking with the latter people,—were apparently well acquainted with this habit.

It is stated in a cheap publication of the present day, and in which I think I recognise the language of one of our most celebrated naturalists, that, unless the tail of the beaver is useful in plastering its house, it appears designed to effect no particular purpose. That the horizontally flattened tail of the beaver and laterally compressed tail of the musk-rat have been formed of scales, precisely similar to what is seen covering the greater proportion of the finny race, for no purpose,—and such is the construction that must be put upon that statement, for that the beaver uses his tail as a trowel is an absurdity,—no reasonable mind will admit, since it would be contrary to what is found in nature. These scaly tails must be destined to perform some very useful purpose in the

economy of the animal, and I believe that it is essential to the health and prolonged existence of both the beaver and musk-rat that those members should be generally immersed in water; and this supposition is confirmed by the native accounts that neither of those animals sleep in a state of nature in any other position. It would be well if the Zoological Society, should they obtain another beaver, were to direct their attention to the subject, by imitating, instead of an habitation resembling a castle partially surrounded by a moat, as is now exhibited in the gardens, a lake with a conical island in the centre, on the borders of which the dwelling should be so placed that the animal might enjoy this habit in a tame state.

That they use their tails as a trowel has in all probability originated from their habit, at the commencement of winter, of frequently walking over the domes of their houses to add mud to every breach, which they are aware will become speedily frozen at that time, and rendered too hard for the wolverine and other quadrupeds to penetrate. If dis-

turbed during that employment, they betray their fear by striking the habitation with their tails, precisely similar to what is observed on their plunging into the water; and, being a very timid animal, from over-watchfulness this is frequently occurring. From the same cause the bear is constantly raising himself on his hind legs, wheeling round each time to scan the surrounding country for the approach of an enemy, and might therefore, with equal propriety, be charged with dancing for exercise.

Their houses are variously situated, being sometimes found in lakes, ponds, and rivers, as well as in those narrow creeks which connect the numerous lakes with each other; but the two latter positions are generally preferred when the depth of water and other circumstances are suitable, not merely because they have the advantage of a current to convey wood and other necessaries to their habitations, but because in general they are more difficult to be taken in such situations than in the neighbourhood of standing water. They always choose those parts that have such a

depth of water as will resist the frost in winter, and prevent it from freezing to the bottom.

If the beaver has fixed upon a small river or creek, wherein to build his house, which is liable to be drained when its supplies are dried up by the early frost, by a wonderful instinct he provides against such an evil, in building a dam, at a convenient distance from his house, quite across the river. In rivers and creeks of but little motion it is built in a straight line; but when the current is more rapid, it is always made with a considerable curve, and convex towards the stream. The same materials are used as in the construction of their houses, but laid with more method; all the parts being made of equal strength, which by frequent reparation become at times so solid as to be capable of resisting almost any force of water and ice. In some cases the willow, poplar, and birch cuttings, which form a part of the dam, take root, and produce large-sized trees whereon birds have been known to build their nests.

From seven to ten inches in diameter is the

size of the trees usually cut down by the beaver; and, to effect this laborious undertaking, the animals, generally sitting on their hind quarters, continue gnawing round and round the stem until they bring it to the ground; the stump having a conical appearance, rather more cut away on that side which is most convenient for the animal's purpose, and usually towards the water's edge. A novice in tree-felling works round a tree in the same manner, except that he has not the ingenuity of the animal to so direct his operations that it may fall in the most convenient manner. The Indians and old *voyageurs* deride such young hands by terming them beaver-cutters.

A full-grown beaver will weigh about twenty-four pounds, and measure four feet. Its flesh is much esteemed by the Indians, especially when roasted in the skin after the hair is singed off, and is not unlike bear's flesh or pork: a beaver roasted after this manner is the principal dish at an Indian chief's feast.

The beaver in high latitudes is confined to

the wooded districts, and its southern range has been fixed by Pennant in latitude 30°; between which parallels, in some parts of the country where the nature of the land is swampy and difficult of access, they are pretty numerous, but in most other situations they have been nearly extirpated. Pennant states that 26,750 beaver-skins were imported into London in 1743, and 127,080 into Rochelle; and in the Fauna Borealis it is stated, that in 1827 the importation of beaver skins into London, from more than four times the extent of fur country than that which was occupied in 1743, did not much exceed 50,000.

In commerce, beaver-skins, cut open, stretched to a hoop, and dried in the sun, are named beaver parchment, forming by far the greatest part of the importation: but when the beaver-skins have been made into dresses, and worn by the Indians, it is termed beaver-coat; and, though it may have been in use a whole season, it still brings a good price. Inferior-sized skins are named beaver-cub.

An incisor tooth of this animal, fixed in a

wooden handle, was once used by the northern Indians with great dexterity as a cutting instrument to fashion the horns of the rein-deer into spear-heads and fish-gigs; but these weapons are now generally replaced by iron, and the beaver tooth has been supplanted by an English file.

The fur of the beaver for the manufacture of hats first came into use in the reign of Charles the First; and by a proclamation in 1638 the manufacturers were prohibited from using any materials except beaver stuff, or beaver wool, and not allowed to make the hats called demi-castors, unless for exportation. It is probable, therefore, that the vulgar term "castor" for a hat is a very ancient term; for as demi-castors were evidently meant in the sixteenth century to express a spurious article, it may with propriety be inferred that castor was the name given to a genuine one. Prior to this period the Indians paid but little attention to the beaver; but, for its commercial value, it was soon sought after with such rigour, that the southern colonies in a very short time were unable to boast of having

so valuable an animal in their possession. It is in North America only that the beaver can now be found; where, during the summer, it is taken in nets and traps, but more generally in the winter, as the fur is then in prime order, by cutting holes in the ice. To meet with success by the latter mode, which is performed in the following manner, requires a person thoroughly acquainted with the manners and habits of the animal.

If the beaver-house is situated in a small river or creek, the Indians generally run a net across the stream to prevent them from passing into a larger expanse of water; after which they seek for any holes in the banks, excavated by these provident creatures as places of retreat in the event of their dwelling-houses being assailed. The Indian hunters, however, are so well acquainted with its habits, that the skill and experience displayed in the formation of these vaults rather tends to the destruction of the artificers than not. The Indians proceed in a party along the edge of the banks in the neighbourhood of a beaver-house, furnished with ice-chisels fixed to the

end of a pole of five feet in length; and by knocking it repeatedly against the ice, for the purpose of detecting a hollow noise, soon discover the animal's retreats. Having cut as many holes in the ice as there are vaults, sufficiently large to admit a full-grown beaver, they betake themselves to the houses, and commence their destruction. The animals, finding their habitations invaded, launch into the water, and being incapable of remaining long in that element, reluctantly seek the ruins of their dwellings, but more generally their hiding-places in the banks, when they are easily taken by the hand, or with a large hook made for that purpose. The Indians, in all their transactions with each other, are very systematic; but it is particularly evident in this mode of hunting: the individual who has discovered the beaver-house claims as his own all the animals that are caught there; and those which are taken in the holes or vaults become the property of the discoverer, who, as soon as he suspects anything by the sound of the ice, asserts his right of property by placing there the branch of a tree.

The bark of deciduous trees, particularly of the poplar, birch, and willow, is the chief food of the beaver; and a supply of these, obtained during the summer, is deposited near the entrance of their houses as a winter hoard. They also seek the bottoms of lakes and rivers, during that season, for a favourite food, the root of the *nuphar luteum*.

The fur consists of a dense coat of somewhat waved, shining, smoke-grey down, concealed by a long coarse hair, which lies smooth, and, when in season, is of a shining chestnut-brown colour; some of the winter specimens, however, have a very dark hue, approaching to blackish-brown, and in summer, the fur, previously to falling off, changes its colour to a pale yellowish-brown: spotted and albino varieties are of very rare occurrence; and when the Indians find an individual of either kind, they convert the skin into a medicine-bag, being then very unwilling to dispose of it.

Leaving the ill-constructed dam raised by the trading company, we soon reached the source of the Echemarmis, and launched the boat over a low rock ten or twelve yards across,

which is remarkable for the marshy streams that arise on either side of it, taking different courses: the one we had just navigated, trending westerly, falls into Nelson River; while the watery course on the other side winds its way in an easterly direction for a short distance, and, after bending to the north-east, communicates with Hayes River, of which it may be considered as one of its minor sources. This small height of land has received the name of the Painted Stone, from a boulder once situated near its centre, whereon the Indians, as they passed and repassed the portage, annually traced rude figures, and deposited offerings; it has, however, been removed many years, and the spot has long since ceased to be held in veneration.

Through a chain of small lakes, connected by narrow grassy streams, we reached the White Fall, a foaming torrent sweeping the bases of rude and shapeless masses of rock piled indiscriminately one upon another, which, being faced with lichens and mosses, contrasted beautifully with the dark-green pines crowning their summits. As we advanced, the rocky land grew in

beauty and grandeur, until it terminated in a romantic defile, surrounded by the most wild and majestic scenery I ever remember to have beheld. On either side were rocky walls rising perpendicularly to the height of eighty or more feet, hemming in the stream for the distance of a mile into so narrow a space, that it was with difficulty the men could make use of the oars. With Hill Gates, as this defile is termed, Hawk Rapid of the Great Fish River may be to a certain degree compared. The former, however, has a far more imposing appearance, and seems to have been worn down by the gradual effects of the water; while the latter, from the uniform ruggedness of its sides, appears to have been suddenly rent asunder by some convulsion of nature.

The country beyond this spot becoming more level, gradually opened to our view, and we at length arrived at the Weepinapannis, a narrow grassy river, composed of several branches, which, by repeatedly separating and again uniting, intersects the country in a great variety of directions. This led us to Holey Lake, so named from a spot near the lower part where

no bottom has yet been found, close to which Oxford House is situated, formerly a post of some consequence to the Fur Company, but which has of late years become unimportant, owing to the migration of the Indians to the more rich plains of the Saskatchiwine. The descent of the Trout River, which is very much impeded by portages and rapids, brought us to Knee Lake, which this body of water has been appropriately named from its singular shape, but more remarkable for a small rocky islet, situated near the bend or knee, being composed of magnetic iron ore, that affects the compass at a considerable distance from the spot where it is found.

We now commenced the descent of Hill River, which, after following a most rapid course, impeded by numerous portages, for an estimated distance of fifty-seven miles, receives a supply from the north-west, and is denominated Steel River. The banks of Hill River consist of low flat rocks with intervening swamps, while the surface-land of the interior is broken into a number of cone-shaped hills; amongst which one towering somewhat above

the rest has given a name to the river; and although its elevation does not exceed six hundred feet, thirty-six lakes are visible from its summit. A view of the hill from Morgan's Rocks and the surrounding scenery have been beautifully delineated in Franklin's Narrative, from the accurate pencil of the late Mr. Hood. At the commencement of this rapid stream the argillaceous cliffs are seen rising in some places one hundred feet above the water-level, capped with hills of at least twice that height; and at those parts of the stream where it is expanded to a breadth of several miles, innumerable islands appear stretching in long vistas, and well wooded, producing scenery of extreme beauty.

Steel River serpentines through a narrow well-wooded valley, presenting at every turn much beautiful scenery, but nothing to equal what is seen along the shores of the former stream. Its banks have less elevation than those of Hill River, and shelve more gradually down to the stream; which, by exposing a tolerably good towing-path, compensates in some degree for the shoals and rapids impeding its

navigation. At its confluence with the Shamattawa it is denominated Hayes River, which, after following a winding course for forty-eight miles, falls into the sea of Hudson's Bay, in lat. 57° N. and long. 92° 26′ W., where we arrived on the evening of the 26th, and took up our quarters at York Factory, the principal depôt of the Hudson's Bay Company.

I received a most cordial reception from Mr. Hargrave and other gentlemen at the fort, who vied with each other in administering to my comforts, and rendered my stay here extremely agreeable. The loading and unloading of the Hudson's Bay ship the Prince Rupert, which was safely anchored in the five-fathom hole on the 26th, so fully occupied their time, that I saw but little of them, with the exception of my friend and fellow-labourer at Guy's Hospital, Mr. Whiffin, who devoted to my amusement as much time as he could well spare from his professional duties.

This gentleman's humane attention to the poor Indians while labouring under influenza has endeared him to them in a manner that I venture to affirm will never be forgotten. He

is deeply interested in the welfare of the aborigines; and it is but justice to state, that the traders generally are friendly towards them, and even form attachments to particular individuals, although they have an odd way of showing it. Where, however, I looked for an honest record of facts, a display of reciprocal kindness, a forcible appeal to the humane to aid the government in their inquiry for the relief of these unhappy people, it was not to be found. From the pen of an individual who owes his existence, and consequently his fame, to the aboriginal inhabitants of North America, I find the following remarks:—"The desire to rescue our fellow-creatures from calamity or death, and still more the thirst of enterprise and the zeal of discovery, were notions far beyond the conception of these rude children of Nature, whose only desires are for food and raiment, and whose pity is a merely animal sympathy, which ceases with the presence of the object that excites it. It seems a harsh assertion, yet I have met with very few indications of what may be called pure benevolence among these people. Akaitcho himself may perhaps be an

exception; but in general the motive, secret or avowed, of every action of a Northern Indian is, in my judgment, selfishness alone."

I will spare this individual the bitter cup of reproach, by refraining to repeat in his own words several statements directly opposed to this unjust and ungenerous attack, but rest satisfied with referring those who are interested in the subject to a former chapter, where many acts of benevolence on the part of these persecuted people are recorded.

In repacking the specimens and comparing my notes with the remarks of the more experienced *voyageurs*, many of whom are accurate observers of Nature, I detected much interesting matter, which, from the hurried manner of the march, had previously escaped me. In the *setophaga ruticilla*, or yellow-tailed gnat-catcher, I possessed the type of the genus, formed of a few species belonging entirely to the New World, and intimately connected with the fly-catchers of Australia. It is one of the most active of its tribe, being almost perpetually in motion; and, as it skips among the branches, utters an incessant twittering, varying its

chants, however, too frequently to admit of their being imitated. The seclusions of the forest, the borders of swamps and meadows, thickly-wooded glens, and, in fact, wherever flying insects abound, there this little bird is to be seen, either in pursuit of a retreating party of flies from the tops of the tallest trees in an almost perpendicular direction to the ground, making at the same time a clicking noise with its bill, or alighted on an adjoining branch, traversing it lengthwise for a few moments, flirting at the same time its expanded tail from side to side, until, espying fresh game, which it can discover at a great distance, it suddenly shoots off to secure it. It is common in the United States, appearing, according to Wilson, in Pennsylvania in April, and departing again early in September for St. Domingo or some other of the West Indian islands, where it winters. The name redstart, derived, in the opinion of Wilson, from the German *rothsterts*, has been given to it from a supposed resemblance to the European bird which bears that name, but from which it differs not only in size and in the tints and disposition of the colours

of its plumage, but in characters that have established it as altogether of a new genus.

"Wilson's remarks on the economy of the American redstart," says Swainson, "illustrates most fully and most completely the station which this elegant bird holds in the scale of created beings. In the first place, it is an ambulatory fly-catcher,—that is, pursuing insects from one station to another,—and is therefore essentially distinct from the true fly-catchers, which sit still and watch for their prey. Secondly, although a true *setophaga*, it should nevertheless bear a very close resemblance to the *sylvicolæ*, or warblers, as united to them by close affinity; and we consequently find Wilson observing, 'that several of our most respectable ornithologists have classed this bird with the warblers.' Thirdly, it sometimes traverses the branches of trees lengthwise, and at others hides itself, as Dr. Richardson observes, like a creeper; both of which habits should belong to a group which passes into accentor by means of *sëiurus aurocapillus* (golden-crowned accentor), since the latter bird has the first of these habits, while the former has the second.

Fourthly, it is frequently flirting its expanded tail from side to side; thus preserving its analogy to the fan-tailed warblers of Australia, which *setophaga* in fact represents. Fifthly, marshy and watery places are its favourite haunts: this we should naturally expect in any group which typifies the *natatores*, or aquatic order, and the *fissirostres*, in its own circle. Lastly, this curious bird in the disposition of its colours so much resembles the redstart of Europe (*motacilla phœnicura*), that it is called in America by that name. Now, it may be demonstrated by an analysis of the sub-family *philomelinæ*, or nightingale-warblers, that *setophaga* actually represents *phœnicura*. We know not in what manner to expound these relations, so wonderfully minute, and yet so beautifully exact, but by supposing that, in this group at least, the true plan of Creative Wisdom has been discovered. To frame a system such as this, which explains affinities the most varied and analogies almost interminable, surpasses the utmost pitch of human ingenuity." *

The *musicapa olivacea*, or red-eyed fly-catch-

* Fauna Borealis, ii. p. 224. Swainson.

er, which is interesting in another point of view, is a numerous species confined chiefly to the woods, and, like all the rest of its tribe that visit America, is a bird of passage. In the month of June it is the most distinguishable of all the other warblers of the forest; and even in August, long after the rest have become silent, this bird, according to Wilson, may be heard in Pennsylvania in full note. It winters in Jamaica, where Sloane informs us it is called whip-tom-kelly, from an imagined resemblance of its notes to these words; but I could detect no such sound.

The red-eyed fly-catcher is one of the adopted nurses of the *emberiza pecoris*, or cow-bunting, showing all the symptoms of affection for the fondling, and as much solicitude for its safety as if it were its own. Although centuries have elapsed since the *cuculus canorus*, or common cuckoo, was known to drop her eggs in the nest of an alien, instead of hatching and building for herself, and thus entirely abandoning her progeny to the care and mercy of strangers, it is only lately that the same uniform habit has been found to exist in the cow-

bunting. What reason Nature may have for this extraordinary deviation from the general practice is involved in mystery, for there is nothing singular to be observed in the anatomical structure of the bird that would serve to prevent or render it incapable of incubation. Very many conjectures have been formed as to the probable cause, but they have been gradually laid aside as unsatisfactory and inconsistent; and until some light is thrown upon the subject, the result of future and more numerous observations, we must rest satisfied with the reality of the fact.

From the interesting memoirs in the American Ornithology, we may further conclude that the cow-bunting is altogether devoid of sexual attachment. "When other birds are separated into pairs," says Wilson, "and occupied in the endearing office of providing a receptacle for their offspring, the cow-pen finches are seen feeding in odd as well as even numbers, from one to twenty, and discovering no more disposition towards perpetuating their species than birds of any other species at other seasons, excepting a promiscuous concubinage,

which pervades the whole tribe. When the female separates from the company, her departure is not noticed; no gallant partner accompanies nor manifests any solicitude in her absence, nor is her return greeted by that gratulatory tenderness that so eminently characterizes the males of other birds. The male proffers the same civilities to any female indiscriminately; and they are reciprocated, accordingly, without exciting either resentment or jealousy in any of the party. This want of sexual attachment is not inconsistent with the general economy of this singular bird; for, as they are neither their own architect, nor nurse of their own young, the degree of attachment that governs others would be superfluous." The well-known practice of the young cuckoo in turning out all the eggs and young which it feels around it, almost as soon as it is hatched, has been detailed in a very satisfactory and amusing manner by Dr. Jenner, and published in the Philosophical Transactions for 1788.

Although no such habit has been actually observed in the cow-bunting, yet no sooner is the foundling hatched than the nurse's own eggs

disappear, but what becomes of them has not yet been ascertained. As the young of this bird is uniformly hatched before the rest, the parent is obliged frequently to leave her nest to provide it with sustenance; by which means the business of incubation is necessarily interrupted, and as nature has now given a new direction to the zeal of the parent, the disposition to continue it abates. What wisdom is here displayed! for if the egg of the cow-bunting required a day or two more, instead of so much less, to hatch it than those among which it has been dropped, the young in every instance would undoubtedly perish, and, of course, in a few years the species would be extinct.

The reappearance of this migratory bird is looked for with anxiety in those parts of America where the horned cattle happen to be diseased; which the farmers ascribe to worms, and judge of the necessity of administering medicine to the quantity of these creatures which are found in the crops of the cow-bunting, procured from the excrementitious matter deposited by the cattle; whence the specific appellation of *pecoris*.

Latham has introduced this bird under different specific names in three several genera, namely, *sturmus junceti, oriolus minor, et fringilla precoris;* and in the *scolecophagus ferrugineus,* or rusty maggot-eater, I possessed a bird which is described by Pennant no less than five different times, under the terms of black oriole, rusty oriole, New York thrush, Hudsonian thrush, and Labrador thrush. The rusty maggot-eaters, like the rose-breasted grossbeaks, are constantly varying the colours of their plumage, and at different seasons or different ages assume new and very different appearances; rendering it almost impossible to judge from a mere examination of their stuffed or dried skins as to what family they belong. Even the size is by no means a safe criterion; for in this bird the difference between the male and female, and even between those of the same sex, is very great.

According to the Prince of Musignano, they arrive from Pennsylvania from the north early in October, when they associate with the red-wings and cow-buntings in frequenting the corn-fields to feed upon the maize, which forms

at that season their principal food. At the expiration of a month they proceed southerly, and in January are found in Carolina, hopping about the hog-pens to purloin the Indian corn upon which those animals are fed. A flock of about thirty of these birds in 1833 remained at Fort Reliance until December, feeding on the intestines of the white fish and trout which were thrown aside by the men; but the same night that the bay was frozen over they departed, and did not return the following summer. They are said to sing with a fine note till the time of incubation, when they have only a chuckling noise; but as soon as the young take their flight, they resume their song. During the months of November and December, however, although I had hourly opportunities of watching the habits of these birds, they merely uttered a chattering note, and then only on the appearance of food, or when they were at variance with each other.

Another bird, which was very abundant at Fort Reliance in the spring of 1834, has been equally misrepresented in this respect by the name of chatterer (*bombycilla garrula*), than which there are perhaps few less noisy. Some

authors have designated it by the more appropriate name of wax-wing, from the curious small flat oblong appendages, resembling in colour red sealing-wax, found at the tips of the secondaries in the adult, which are merely the coloured corneous prolongation of the shafts beyond the webs of the feathers. By the appearance of this bird at the eastern extremity of Great Slave Lake, in its full size and perfection, exactly similar to the European individuals of its species, we have proof of the absurdity of Buffon's theory, that European animals degenerate or become more or less changed in other climates. The appearance of this mysterious wanderer in that hitherto unexplored portion of the globe is of greater importance, as tending to throw some light on its place of abode. Whence it comes at the long and irregular periods of its migrations, or whither it retires to pass its existence and give birth to its progeny, is still involved in darkness.

"It has been stated, and with much appearance of probability," the Prince of Musignano remarks, "that these birds retire during summer within the arctic circle: but the fact is

otherwise; naturalists who have explored those regions asserting that they are rarer and more accidental there than in temperate climates." Although the Fauna Borealis was published prior to the Prince of Musignano's work, it does not appear that he was aware of large flocks of these birds having been found at Great Bear Lake by Dr. Richardson, where, as at the eastern extremity of Great Slave Lake, after staying for a few days they departed, but in what direction could not be ascertained.

They made their appearance at Fort Reliance singly or in pairs, perched on the topmost branch of a dead pine, and were very difficult of approach; but as soon as they had collected in numbers, they sought those spots where the common juniper grew abundantly, and employed themselves during the day either in stuffing their crops with the berries, or traversing the low brushwood in silence and secrecy. When disturbed, they alighted in flocks on the dead trees, seemingly unconscious of danger, and were then easily shot. According to the Prince of Musignano, they feed upon all sorts of fruits, and even upon insects; but the crops of those I

opened were filled solely with juniper-berries, although there were many other fruits growing around them.

Being great and irregular wanderers, these birds were recorded in the ages of darkness as the precursors of war, pestilence, and other public calamities. We are informed that flocks of hundreds were seen flying about the north of Italy in February 1530, marking the epoch when Charles V. caused himself to be crowned at Bologna; and that a similar visit had taken place in 1551, when it was remarked, that though they spread in numbers through the Modanese, the Plaisantine, and other parts of Italy, they carefully avoided entering the Ferrarese, as if to escape the dreadful earthquake that was felt soon after, causing the very birds to turn their flight.*

The Prince of Musignano's figure of this bird, prepared from a specimen obtained together with others from the north-west range of the Rocky Mountains, is well engraved, but sadly coloured. It does not convey to the eye the fine and silky texture for which this bird is

* Vlyssis Aldrouandi Ornithologiæ. Lib. xii. p. 801.

remarkable, and the corneous appendages are not sufficiently bright.

A lark which I obtained at Fort Reliance in May 1834 so much resembles the European rock-lark (*anthus aquaticus* of Bechstein), that there are considerable doubts as to its identity. Dr. Richardson has considered it as identical with that species, not only in the Fauna Borealis, but lately in the Appendix to Captain Back's Narrative; and Audubon has done the same in his Biography. The Prince of Musignano was once of the same opinion; but in his observations on Wilson's nomenclature he saw reason to change his opinion, and, after comparing several arctic specimens with those of Europe, he was convinced they were not of the same species, and named the American bird *anthus Ludovicianus*, or Louisiana lark.

The breeding-place of this bird is not known, nor had it been found previously to this expedition beyond the Saskatchiwine River, where it was observed in the spring of 1827 by Dr. Richardson, feeding on the larvæ of small insects, particularly of a species of ant, whose habitations are constructed with small twigs and

loose straw. Wilson states that, on its arrival at Pennsylvania from the north in October, it is to be seen running rapidly over flat, newly-ploughed fields, commons, and such like situations; and that, on opening numbers of them at that time, they appeared to have been feeding on various small seeds, with a large quantity of gravel. At Fort Reliance, where they were very numerous in May 1834, their favourite abode was the sandy shores of the A-hēll-dĕzzā, and their crops were uniformly filled with grass-seeds and gravel, both of which they could obtain there in abundance.

On the 20th of September I embarked with eight men on board the Prince Rupert; but, from adverse winds, the anchor was not weighed until the 24th, and before we bade adieu to Cape Farewell the morning of the 11th of October had well dawned. From this time, however, the wind was so favourable, that in sixteen days we had the pleasure of making the land off Hastings, and on the morning of the 28th of October I reached London.

CHAPTER XX.

Facts and Arguments in favour of a new Expedition.

HAVING learned from Captain Back himself, before his return to this country, that he did not intend to make another attempt by land at surveying the northern coast of North America, I took an early opportunity, after my arrival in England, to propose for the consideration of the Government an Arctic expedition under my own conduct, upon a different plan from that pursued by Captains Franklin and Back, and at an expense not exceeding a thousand pounds. Before, however, sufficient time had elapsed to obtain an answer, the distressed state of the whalers beset in the ice of Baffin's Bay excited the sympathy of Captain James Clarke Ross, and induced that distinguished officer to volunteer his services

for their aid and rescue. The Government had no sooner decided upon accepting Captain Ross's offer, than I sought of the Board of Admiralty the appointment of surgeon to the expedition, and solicited their early and favourable attention to my first proposition; as upon the return of the vessel sent in aid of the ice-bound whalers, by diverging a little to the westward, I might have been landed at Port Nelson in Hudson's Bay, whence I could have prosecuted my intended journey to the north with the same probability of success as if I had proceeded by way of Montreal. In answer I was informed, that the Admiralty "could not interfere in the appointment of surgeon, the selection of officers being left altogether to Captain Ross;" and relative to my other offer, the Lords Commissioners of the Admiralty, in expressing their thanks, informed me that "a memorandum would be made of it." Hearing that Captain Ross was at Hull actively engaged in fitting out the "Cove" for his benevolent mission, I lost not a moment in writing to him; and, in answer, received his thanks for what he very kindly termed

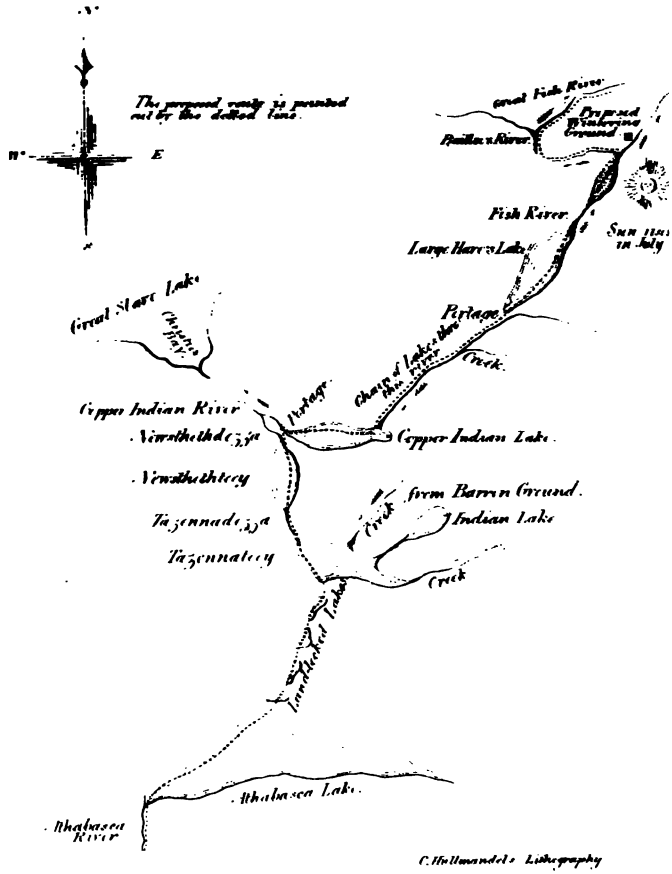
"my prompt and zealous offer of services as surgeon of the expedition under his command; but regretting that he could not avail himself of the offer, all the appointments being already filled up by naval medical officers."

About this time Sir George Grey granted me the honour of an interview, the particulars of which were to be communicated to Lord Glenelg; and, with a view of obtaining the support and co-operation of the Royal Geographical Society, I had the pleasure of describing my route by chart to its president, Sir John Barrow. His Majesty's Ministers, however, although at first favourable to my proposition, ultimately declared it was not their intention to prosecute further discoveries in the North. Having intimated, therefore, to the leading members of the Government my determination of still prosecuting if possible my design, I published a prospectus, detailing the route of my anticipated journey, with a view to raise by public subscription the necessary funds. Messrs. Williams, Labouchere, and Deacon, 20, Birchin-lane; Messrs. Praed and Co. 187, Fleet-street; and Messrs. Cocks and Biddulph, 43, Charing-

Cross, kindly undertook to receive subscriptions, and their books are still open to those who are desirous of encouraging this enterprise.

The expedition I propose to consist of an officer and six men; the men to be hired at Montreal in Lower Canada, not merely because their travelling expenses and pay up to the period of my leaving that city for the interior would be saved,—amounting, at the lowest computation, to between three and four hundred pounds,—but because I know by experience that one man accustomed to the toils and hardships of the country (and the Canadian *voyageurs* are well acquainted with the service) will perform the duty of three inexperienced men, however willing and able they may be. Were I to consult my own feelings, and could command the necessary fund, I should embrace the offer of five of my late companions now in England, who have volunteered to accompany me: this, however, cannot be.

After completing my crew and embarking the necessary outfit, I propose proceeding to Lake Winnipic, and, having secured eight bags of pemmican necessary for the sea-coast,


The ground really is presented
only by the dotted lines.
W°
E
Great Fish River
Pauline River
Fish River
Large Harrow Lake
Portage
Creek
Great Slave Lake
Copper Indian River
Copper Indian Lake
from Barren Ground
Indian Lake
Creek
Thalassea Lake
Thalassea River
C. Hullmandel's Lithography

voyage, making directly for the Athabasca Lake. Here would begin a new survey, for the purpose of reaching the Great Fish River by a less circuitous route than that of the Slave, Artillery, Clinton-Colden, and Aylmer Lakes; which track is well known to both the Chipewyan and Copper Indians. I propose, after engaging a native guide, to pass from a bay of the Athabasca Lake, (as will be demonstrated by the chart, copied from one in my possession drawn by the Camarade de Mandeville, whose name will already have become familiar to those who have perused the present narrative,) by a chain of four lakes, impeded by five short portages, to the Tazennatooy, into which two rivers empty themselves. The discharge of the Tazennatooy forms the Tazennadezza, which widening, forms the Newshethtooy, and again contracting, is called the Newshethdezza, falling into Slave Lake. The Indians do not pass far down the latter stream, but make a portage to a lake that is tributary to it; and after following the course of a river, or rather a chain of lakes with narrows, for some distance, by crossing a short portage they reach Large

Hares Lake, whence a noble stream takes its rise.

This is the Fish River, so frequently mentioned in the preceding pages, near the source of which a tributary to the Great Fish River is situated, separated by a portage of a few paces only. This supply falls into the main stream, sufficiently low down to avoid all the shallows and many of the rapid parts; and, in the opinion of several aged Indians who witnessed the Camarade sketching the accompanying outline, it is Baillie's River of the chart.

On the banks of the Thlewÿ-dĕzzā, or Fish River, I should winter; as here I should secure several advantages, the importance of which will be at once evident. In the first place, the vicinity is resorted to by the moose-deer, an animal that migrates less than the rein-deer; consequently, there is the greater probability of supplying myself and party with meat, provided we should fail in obtaining fish, as was the case at the eastern extremity of Great Slave Lake during the last expedition. Secondly, it is a favourite hunting-ground during the winter with a few parties

of the Chipewyans, who, by not congregating in considerable numbers, as the Copper and other Indians, seldom fall a sacrifice to starvation, so common to those tribes who acknowledge a chief and keep in one body, and who are consequently in time of need more likely to assist a party of strangers. Thirdly, it would enable me to take advantage of the first breaking up of the Great Fish River, an advantage which I could not secure in any situation like Fort Reliance, our late wintering-house, where lakes were before us; and it being a well-ascertained fact that the rivers uniformly break up from a month to six weeks earlier than the lakes, I must necessarily gain that time for the survey of the coast.

As early as possible the following spring, I propose to follow the course of the Great Fish River to the sea, and having ascended the inlet to the farthest point made by us, in latitude 68° 13′ 57″ N. and longitude 94° 58′ 1″ W., make direct for Point Turnagain, and afterwards to the eastward, to clear up the point now at issue respecting the isthmus of Boothia Felix. Also, if the season should not

be too far advanced, instead of returning by the same route, I propose to seek out the mouth of the Fish River, for the purpose of surveying it to its source.

My project was no sooner made public, than I was congratulated on the certainty of so small a sum being immediately provided by an enlightened and liberal nation; but far from this, notwithstanding that several influential papers strongly advocated my cause—in particular the Sun, Atlas, Naval and Military Gazette, and Leeds Mercury—and that circulars were most extensively distributed throughout the country, from some cause, still to be interpreted, the amount received falls very short of that required.

As no notice had been taken of my application to the Geographical Society, Dr. Hodgkin, as a member of that body, kindly undertook to address its committee on my behalf. The following is a copy of his letter:—

"Although I have no pretensions to personal acquaintance with the objects and difficulties to be considered in connexion with

arctic expeditions, yet I am induced by a lively interest in the subject, and after careful attention to a variety of facts which have come to my knowledge, to offer a few remarks for the consideration of the committee of the Geographical Society, and to solicit their attention to the sketch of an enterprise of this description which has been drawn up by one who has had ample experience in connexion with this subject.

"The importance of these expeditions, whether we look at them in a commercial, a nautical, a purely geographical, or in a more generally scientific point of view, or as intimately connected with our national reputation, is too well and too generally understood to require a syllable from me.

"The researches of our countrymen have already greatly reduced the extent of the northern coast of America respecting which doubt or ignorance exists. The investigation of this remaining portion may be undertaken either by sea or by land. With respect to the mode of conducting by the former, I feel that it would be an impertinence in me to

offer any suggestions to the experienced officers who compose the committee which I am now addressing; but when I call to mind how large a portion of the arctic voyages of discovery have been either unsuccessful, or attended with prodigious loss or risk—how great an expense they unavoidably incur compared with the amount of real advantage to be expected, it does seem well worthy of the consideration of the Geographical Society, whether it be right to recommend to the government the equipment of a fresh expedition of this kind, until one or more points have been settled by the more economical as well as the more promising agency of overland expeditions.

"Although overland expeditions towards the northern coast of North America may be regarded as less expensive and less dangerous than an arctic voyage, and at the present moment more likely to obtain accessions to science and commerce, they may greatly vary amongst themselves in all these respects, according to the mode in which they

may be undertaken. They may, however, be all comprised in two classes.

"To the first class belong small companies, travelling with the least possible encumbrance, and strictly adopting the mode of proceeding and the means of subsistence in use amongst the natives of the country and the traders who visit them. Individuals uniting physical ability, both for doing and suffering, necessary to meet the dangers and fatigues of this mode of travelling, with talents and acquirements necessary to render their journey availing for the purpose of science, have already effected much at a very trifling outlay. Hearne and Mackenzie prove the truth of this assertion.

"The second class consists of those expeditions which possess a more organised and systematic form, being composed of a company of men and officers accustomed to military or naval service, seldom or never amounting to a smaller number than two or three officers and eighteen or twenty men, and consequently requiring a considerable amount of baggage. For the conveyance of these men

and their stores the small canoes of the country, which are readily made, repaired, and transported, are quite inadequate. Boats of larger dimensions are therefore had recourse to, which are easily damaged, are with difficulty repaired, and are too cumbrous to be conveyed across the portages when the distance is great or the ground uneven. These evils are not theoretical; they have been proved by fearful experience, and have been the cause of immense difficulty or failure. Companies of the size now under consideration, though they form but a small military troop, are too large to travel with advantage through a country in which the means of subsistence are very scanty and still more precarious. The difficulties which they have to encounter are infinitely increased when the individuals comprising the company are not practically acquainted with the mode of travelling through the district to be crossed, and consequently cannot be separated from each other without the greatest danger of fatally losing their way; on which account they cannot seek game and other sources of subsistence. From want of

experience they are unable either to bear the burdens or travel the distance which a Canadian or an Indian would disregard. Time, the most important element in northern expeditions, is inevitably lost, and neither the energy nor the genius of the commanding officer can retrieve the error when the season is advanced upon them.

"It has been justly remarked in one of the communications presented to the Royal Geographical Society, that the state of the aborigines of the country, which it is the object of these expeditions to explore, has a strong claim upon our commiseration and assistance. Every philanthropist must cordially unite with this sentiment when he considers how rapidly Europeans and their descendants have effected, and are effecting, the degradadation and extermination of interesting tribes once numerous and important. But have these larger land expeditions in any degree contributed to retard this melancholy process? Quite the reverse. Whole tribes are dwindling under the influence of diseases which these expeditions have introduced amongst

them, and many families have perished with hunger whilst attending upon a party of whites for the purpose of supplying them with food.

"It is impossible not to admire the zeal and spirit of those officers who, having repeatedly braved the rigours of a northern winter, and again and again led or accompanied expeditions to the arctic regions both by sea and land, have not only favoured their geographical brethren with the result of their experience, and with various suggestions to facilitate renewed research, but have, after the lapse of several years, made the offer of their services, and are ready again to expose themselves to the inclemency of the North. Their countrymen should be animated by their example to encourage and support any reasonable attempt in that direction; but surely they cannot deny a consent that those veterans, arrived at an age much better suited to receive honour than to endure hardships, should not expose themselves to fresh dangers and privations, when there are the young, the enterprising, and competent, anxious to take

their turn. *Non tali auxilio non defensoribus istis tempus egit.*

"Let me now solicit your attention to the well-digested and very feasible plan of an individual who is well and practically acquainted with the region to be explored,—with its difficulties and its resources, and with the modes in which it may be traversed;—of an individual who unites the physical, the scientific, and the moral requisites for conducting such an enterprise, whether we regard geographical or natural historical research, or the welfare of the aborigines. The individual to whom I allude does not, it is true, enjoy those necessary advantages of patronage and interest which a military or naval officer would doubtless readily obtain; but he is one of a profession which has already produced travellers remarkable for their enterprise or their talents, — of a profession which has produced, a Park, a Humboldt, a Clapperton, an Oudenay, and a Richardson;— of a profession the resources of which are peculiarly necessary to those who, in their arduous journey, must be eminently exposed to accident and disease.

"The expedition of which my friend Richard King has sketched the accompanying outline,—for which he has already made many necessary preparations, and in which an adequate number of his former companions are anxious to accompany him,—falls under the first or small class of overland expeditions to which I have alluded. The expense which it would probably incur is small, compared with that of any expedition of the second class;—so small indeed, that its adequacy has been called in question. It must, however, be recollected, that the expedition has to pass through a country in which money is of no avail; that, with the exception of articles to be used in barter with the Indians, the skill and experience of the leader, and the strength and prowess of his companions, are the only availing resources. In such an expedition the experience and ability of the leader is the desideratum of the first importance; and it is scarcely to be measured or represented by money. This desideratum, Richard King, the companion of Captain Back,—the joint, and, for a considerable time, the sole conductor of his company,—is not only ready to offer, but he is also

generously willing to bear a considerable part of the pecuniary expense. Can the Geographical Society disregard, or much less discourage such enthusiasm? Can we suffer such a stigma upon us to be inscribed in indelible characters in the annals of arctic research?

"T. HODGKIN, M.D."

The following is the sketch of the proposed expedition, sent to the Committee of the Geographical Society, mentioned in Dr. Hodgkin's letter.

"Having maturely considered the best means to be adopted in undertaking a further survey of the northern coast of America, I have come to the following conclusions:—A party consisting of an officer and six men should proceed in a north-canoe, a vessel best adapted for the service, passing from Montreal in Lower Canada, by the rivers Hudson and Grand Uttawa, Lakes Huron, Superior, and Winnipic, to the Athabasca; and having taken an Indian as a guide, pass due north, by a route well known to the Chipewyans, to a river to the eastward of Fort Reliance. On its banks the party should winter; as, upon Indian authority, not far from

its source a tributary to the Great Fish River takes its rise, which is said to disembogue somewhere below the Musk-Ox Rapid, and most probably may turn out to be Baillie's River.

"Early in the spring the party should proceed by that stream down the Great Fish River to its mouth, and having ascended the inlet to Cape Hay, coast along until the Isthmus of Boothia be either met with or proved not to exist. It must be apparent to all persons that the Isthmus of Boothia cannot be approached more readily than by the projected route; as the difficulties to be contended with are known, with the exception only of two or three days' march beyond the limit in our last expedition. If the land of North Somerset is found to be continuous with the land forming Repulse Bay, it may then be advisable to fit out a sea expedition, to try for a passage about the broken land around Melville Island. While, however, the passage by Regent's Inlet remains in doubt, I consider it would be highly impolitic to send out an expedition on a large and expensive scale; more especially since public opinion,

from repeated failures, seems indifferent about further attempts in the North.

"The success of the land expeditions has very satisfactorily shown that to such a service only England will in all probability be indebted for the survey of the coast now unexplored, and for the knowledge of any passage about Regent's Inlet. If this be admitted, the question which next arises is, what number should compose the party? since all future arrangements must depend upon its solution. The only reason that can be adduced in favour of a large number of persons, is protection against native ferocity. Experience has, however, shown that little or no danger is likely to arise on that head; for during all the land services, one tribe only presented a formidable appearance, namely, the Esquimaux at the mouth of the M'Kenzie. If, as the different tribes along the whole course of that stream seem to agree in stating, the Russians have a factory between Franklin Extreme and Whale Island,—and the quantity of knives, apparently of Russian manufacture, seen amongst them by Sir

John Franklin, would indicate that they must have a free communication with that people,—the attack upon Franklin's party may be readily accounted for; since it has been proved that the North American Indians, when they have once attached themselves to a party of traders, are very jealous of any inroad made upon them by others. The contest between the North-west and Hudson's Bay Companies, if investigated, would afford fearful proof of this assertion.

"The precedents in favour of a small party will be found to be many. Sir Alexander M'Kenzie, of the North-west Company, made all his discoveries in a north-canoe, the smallest vessel used by the traders; and Hearne discovered the mouth of the Copper-Mine River without even a single white attendant.* Park and Lander, who succeeded when alone, failed and lost their lives when accompanied by a party; and Captain Burnes is acknowledged to have made his journey in the most judicious man-

* These adventurous journeys will ever form an epoch in the annals of northern discovery; for the one incontestably proved a practicable passage for boats bisecting the continent from Hudson's Bay to the North Pacific Ocean, and the other gave the first authentic information of a sea bounding America to the northward.

ner, by so conducting himself that he in general made friends of those races who have invariably been hostile to all strangers. When appointed to missions, in which most people would have required the protection of escorts, Captain Burnes always declined that species of defence, and relied upon his own prudence; and not only that, but proved by the event, that in the management of rude nations it is far more safe, and even more easy, to win their favour by mildness of manner, than to subdue them by force."

The plan which I have sketched was conceived and matured whilst I was in the Indian country; and the most able of my companions are anxious to aid me in carrying it into execution. I may also quote in support of it the following letter from an experienced North American traveller:—

"Edinburgh, 31st December 1835.

"MY DEAR SIR,

"I am extremely glad to find that there is every probability of your being appointed to complete the survey of the remaining un-

explored part of the American coast; and I rejoice that it has fallen into the hands of a persevering gentleman in my opinion so well qualified to ensure success. I will not say that I myself am the person best calculated to effect it; but I have had some experience, am known to be one who would not undertake that which I could not perform, and am so much convinced of its practicability, and of my own powers while I had strength remaining, that feeling it was a disgrace to my country, while the Russians were making daily advances, to have left so long undone that which was so easy in itself if people but knew how to set about it, I had so far back as 1829 tendered my own services to the Hudson's Bay Company, of which you know me to be a factor, to explore the whole of the coast from Churchill to the Russian settlements in Kotzebue's Sound: and as an earnest of my conviction that by adhering to the proposed plan you mentioned to me, you will be able ultimately to accomplish what I was willing to undertake, in a manner that will be equally creditable to yourself and the country, I beg that if the

necessary funds are to be raised by subscription, you will do me the favour to put down my name for twenty pounds. Much will depend on perseverance, when every retrograde motion is attended with difficulties; and I can with truth say, that in the whole of my own travels I invariably found it to be more dangerous to return, than it was to persevere in proceeding.

"I have only further to say, that if the present state of my health continues, I shall return to London in January, when I hope to hear of a favourable termination to your labours.

"I am, my dear sir,

"Yours faithfully,

"JOHN STEWART."

"Richard King, Esq."

My reasons at this time for urging the country to prosecute further discoveries in the North are not merely owing to my firm conviction of the possibility of tracing out the whole line of undiscovered coast, but because, by a recent discovery, even subsequent to that

of the Great Fish River, it is in the power of Russia to effect that object. The Indians of the M'Kenzie River having informed Mr. John M'Leod, one of the agents of the Hudson's Bay Company, in charge of Fort Simpson, that in their hunting excursions up the Liard, or Mountain River, they had fallen upon the source of a large stream flowing to the westward, that gentleman lost no time in tracing it to its source, a distance of three hundred and eleven miles south-westward of the Rocky Mountains. After making a portage of twelve miles he succeeded in finding the river, which, from the western extremity of the portage, appeared taking a southerly course towards the Pacific Ocean, and very likely falls into the sea at Observatory Inlet. On the height of land there were situated some Nahanies, who trade with coast Indians, and who, in Mr. M'Leod's opinion, from some articles of English manufacture found amongst them, were in the habit of receiving their supplies from one of the most northern establishments of the Hudson's Bay Company. A moment's inspection of the chart will be sufficient to show

how much more readily the coast-line between Point Turnagain and Ross's Farthest might be attempted by that route, than by the long and difficult navigation of the course hitherto pursued.

The question has been asked, how I can anticipate success in an undertaking which has baffled a Parry, a Franklin, and a Back? I will state in reply, that if I were to pursue the plan adopted by the latter officers, of fixing upon a wintering ground so situated as to oblige me to drag boat and baggage over some two hundred miles of ice, to reach that stream which is to carry me to the scene of discovery, and, when there, to embark in a vessel that I knew my whole force to be incapable of carrying, very far from expecting to achieve more than those officers have done, I very much question if I could effect so much.

On looking back upon what has been accomplished, I am so thoroughly convinced that the success in a great measure depended upon a concurrence of favourable circumstances, that the chances would be very much against the performance of the same duties in the same

time again. During the late expedition, when the boat was on the eve of being launched into the waters of the Great Fish River, not a single individual composing our party ever expected to reach the sea at all; for, according to the statements of the Indians, we had every reason to expect very many portages, and being well aware of the inadequacy of the crew to carry the boat, one alone would have been sufficient to arrest the progress of the expedition. The river was fortunately, however, by no means so formidable as it had been represented; although, had we been capable of conveying our vessel over land, instead of incurring the risk of running many dangerous rapids and lowering down others, we should doubtlessly have made several portages. It was nevertheless absolutely necessary to make one carrying-place; and at that particular spot a friendly tribe of natives was most fortunately situated, who assisted us in effecting that which by ourselves we were perfectly incompetent to perform.

A small field of ice, however, ultimately stopped us; and being deprived of the aid of the Esquimaux owing to the sad conflict that took

place between them and three of our party, the honour of completing the undiscovered coast, otherwise most decidedly in our power, was wrested from us, and we had consequently but to add another failure to the list of unsuccessful attempts at surveying the shores of the Polar Sea.

It is neither my intention to multiply nor magnify the dangers and difficulties to be contended with in prosecuting arctic discoveries for the purpose of adding to the interest of my narrative, nor to dress in Esquimaux attire for the sake of effect, nor to figure in a panoramic view; but if my plan is carefully dissected, I trust it will be seen that my object is to accomplish as much as possible for the benefit of science at the lowest rate of labour and expense. In selecting my wintering ground, I have not only borne in remembrance the appalling calamities which befel the natives at Fort Reliance, occasioned by the presence of our large party, but I have had in mind the long and laborious duty of crossing the boat and baggage from that establishment to Musk-Ox Rapid. Neither was it likely I should forget

the transport of the baggage across the Great Slave Lake, and of the boat over Portage la Loche; not merely because those undertakings were conceived and accomplished after Captain Back had consigned the expedition to my charge, but because I believe them to have been hitherto unequalled. Sir Edward Parry's attempt to reach the Pole over the ice was somewhat similar to the former, although far inferior to it in extent of manual labour; and the boat which Sir John Franklin conveyed over Portage la Loche, though less in size than mine, was accomplished by twenty-seven men, whereas my whole force did not exceed twelve.

In the selection of my vessel I have taken care to provide myself with one that two men are sufficient to convey over any obstacle that the previous expeditions have hitherto had to contend with,—one that is in use among the natives, and one in which the fur-traders, from long experience, have found to be most adequate in traversing unknown ground. It was in a canoe that Sir Alexander M'Kenzie made all his discoveries; and by its assistance Hearne passed those streams which crossed his path, while in

search of the Polar Sea. In such a vessel Sir John Franklin surveyed the Copper-Mine River, and traced the coast-line to Point Turnagain; which spot, since more unwieldy vessels have been used, has not been again reached, although two expeditions have sailed from England for that purpose, the one at an expense of about forty thousand pounds, and the other at seven thousand. Also in the formation of my crew and selection of my baggage I have endeavoured to be equally considerate; but as the advantages of encumbering myself with as few men and as little baggage as possible has been so well explained in Dr. Hodgkin's letter to the Royal Geographical Society, there needs not a syllable from me on that head.

By the plan I propose, time as well as manual labour will be saved; those obstacles which have arrested the progress of former expeditions, such as falls, fissures, mountains and masses of ice, no longer present insurmountable barriers against arctic research. It is by avoiding those errors into which former commanders have fallen, and taking advantage of suggestions dictated by experience, that

I hope to effect more than my predecessors have done: and it is seldom that by any other course great objects can be achieved.

An objection has been raised that the sum required is far too small for such an enterprise. This would have been answered, had the Arctic Land Committee rendered an account of the expenses incurred in Captain Back's expedition: but as this has not been done, it is necessary for me to allude to them at sufficient length to meet the objection; and in doing so, I beg to be understood that it is not meant to cast any reflection upon Captain Back. It will be unnecessary for me to state the expenditure of my projected expedition; because by comparing the number composing my party with that of the last expedition, and the sums required for their completion, it will be at once evident that, instead of asking too little, I have reserved a small sum for defraying those expenses which depend upon accidental causes.

On the late expedition nineteen persons were receiving pay and provisions; and for the purpose of manning Captain Back's light canoe both in and out of the country, six men were

additionally hired for a period of twelve months. To defray this a sum of six thousand pounds was subscribed; but of which, I believe I am accurate in stating, not more than five has been expended, the rest still remaining in the hands of the Arctic Land Committee. As it is proposed that my party shall consist of six persons only, it will be at once apparent that one third of the sum is all that can be required; and if the pay and expenses of Captain Back's light canoe men be deducted, and that of three men taken from England, in addition to the expenses of Captain Back and myself, which I estimate at nine hundred pounds, it will be seen that a thousand pounds is more than sufficient to effect my object.

Were this not the case, I might make a further deduction of the passage-money of one officer and eight men across the Atlantic on their return to England; besides many other items,—such as defraying the expense of the despatch announcing the safety of Captain Ross and his party, and the payment of those Indians that transported our pemmican from Fort Reliance to Musk-Ox Rapid.

Although Dr. Hodgkin's letter has remained unnoticed by the committee to whom it was addressed, a short comment on my sketch which accompanied it has been penned by one of its members, in which the principal, if not the only objection raised against it, is that of the proposed route being founded upon information obtained from the Indians. As far as my own experience goes, that knowledge of the country which is gained from the natives stands next in importance to an accurate survey, and is decidedly of more value than the statements either of the fur-traders or their servants. It was from Indian report of a copper-mine existing in the vicinity of a "stinking lake," or sea, that led to the discovery of the Arctic Ocean. The Fury and Hecla Strait was delineated by an Esquimaux prior to its discovery; and so thoroughly convinced were Doctor Richardson and Captain Back of the accuracy of the Indians in sketching an outline of those parts of the country visited by them, that upon the authority of Blackmeat they formed a plan for the rescue of Captain Ross and his party.

This will be made evident upon referring to the Penny Magazine for the 31st of December 1832, which contains the report of a paper read before the Royal Geographical Society a month previously by Captain Back. That, officer, after giving his reasons for expecting to find Captain Ross or some of his party at the wreck of the Fury on the western shore of Regent's Inlet, makes the following statement:—

"By a reference to the map, then, it will be seen that Regent's Inlet trends towards a portion of the main coast lying between the 90th and 100th meridians; and, in all probability, it fortunately happens that the Thlooee-choh,* or Great Fish River, *must fall into* the Arctic Sea within the same limits; being, from *the unanimous report of the Indians*, not only a larger stream than the Copper-Mine and more navigable for boats, but flowing through a better wooded country, frequented by vast herds of deer. It is, in fact, to its banks that the Indians of Slave Lake resort for their

* Here is another synonyme for the Thlĕwў-cho-dĕzzā to perplex the reader.

principal supplies of provisions; and Hearne, who crossed it near its source, says, 'We were here joined by upwards of two hundred Indians from different quarters;' and 'the deer were so plentiful that our party killed great numbers, merely for their fat, marrow, and tongues.' The access to its banks from Great Slave Lake is likewise easy by a chain of lakes and portages: and from *the general agreement of the maps drawn by the Indians* with one long ago obtained from the Esquimaux who visit Fort Churchill, we may further conclude that the Great Fish River falls into an extensive bay, whose west side is bounded by a promontory running far to the north and separating this recess from Coronation Gulf, and its east side by Melville Peninsula. The Indians also describe three islands as lying off the mouth of the river; and its Indian name implies that its estuary is frequented by whales." Again, "If an opinion which I have been led to entertain from an inspection of *the maps traced by the Indians*, of the mouth of the river being between the 68th and 69th parallels of latitude, be correct, we shall then

be less than three hundred miles distant from the wreck of the Fury, and, under favourable circumstances, little or no doubt can be entertained of our being able to reach it."

By referring to the present narrative, it will be seen how singularly correct the Indians were. The river fell into the Polar Sea within a few minutes of the 68th parallel of latitude, and 95th meridian of longitude. It was a larger stream than the Copper-Mine, and frequented by vast herds of deer. The Indians of Slave Lake, to obtain their chief supply of provisions, resort to its banks; and the approach to them is also by a chain of lakes and portages. Moreover, it falls into an extensive bay; and, since the Indians have been so far correct, it is probable that the western shore of that bay is formed of broken land, or, in other words, of three islands, described by the natives as lying off its mouth, which I have all along suspected to be the case. The same article contains Captain Back's speculations both as to the time of his reaching Great Slave Lake, and his line of route beyond the limit marked out in the Indian charts; which, I am sorry to say, will bear

no comparison in point of correctness with the "speculations" of the natives, as their information has been termed.

If, then, Doctor Richardson and Captain Back could put such implicit confidence in the natives as to propose for the consideration of the Government, upon their sole authority, an expedition over so considerable an extent of undiscovered country, surely I may be permitted to form a project wherein, comparatively speaking, it is in contemplation to traverse only a small area of new ground.

"Why not have ascertained the correctness of the Isthmus of Boothia?" has again been asked; "since, although prevented by floating ice from proceeding westerly, an open sea was exposed to view in an easterly direction, and the distance not more than one hundred and sixteen miles,—one days' sail or two days' labour only." This, I beg leave to state, is Captain Back's affair: but I may remark, that his orders were contradictory to such a course; and the impropriety of restricting an officer to this or that line of route, or this or that period of time for leaving the coast, of which the Government can

know little or nothing, is made evident by the equipment of an expedition as lately as July last, at an expense of certainly not less than twenty thousand pounds, to ascertain a fact which might have been determined in a few hours, had the commander of the late expedition been in possession of discretionary orders. The blame, however, does not rest altogether with the Government; for in such services the officer undertaking the enterprise generally dictates his own orders;—at least, such was the case with Captain Back.

The last and most ungenerous objection that has been raised against this project, is that of incompetency on my part,—an objection which it would ill become me to attempt to meet.

THE END.

LONDON:
PRINTED BY SAMUEL BENTLEY,
Dorset Street, Fleet Street.

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